

EK-SYSTEMS INC

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2704MP
2604

MODEL

Ideal for :

- Photographic film
- Solid extrusion
- Wire coating
- Multi-layer

Features :

- Melt Pressure control
- Suitable for 4 or 6 wire transducers
- Pre-screen pressure monitor and alarm
- Pressure alarms
- Simple calibration
- Field communications options



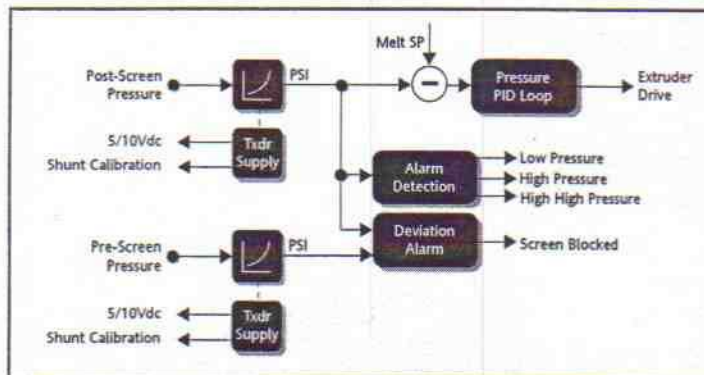
Extrusion Melt Pressure Specification Sheet

The 2704MP is a fully programmable melt pressure controller, suitable for precision pressure control in the plastic extrusion industries.

In its basic format the 2704MP standard hardware includes an input for melt pressure measurement, an analogue output to drive the extruder screw and alarms to detect high and low pressure conditions. Additionally, a second pressure input can be connected providing the facility to provide a differential pressure alarm across the screen. Automatic transducer calibration procedures and 5Vdc or 10Vdc transducer power supplies are provided for both inputs.

For standard applications, controllers are shipped pre-configured to the users specification, using a simple to complete order code. User customisation can be achieved by reconfiguring the controller via its front panel interface or Eurotherm's ITools configuration software.

The 2704MP is fully compatible with the standard 2704 process controller; data sheet number HA026669.

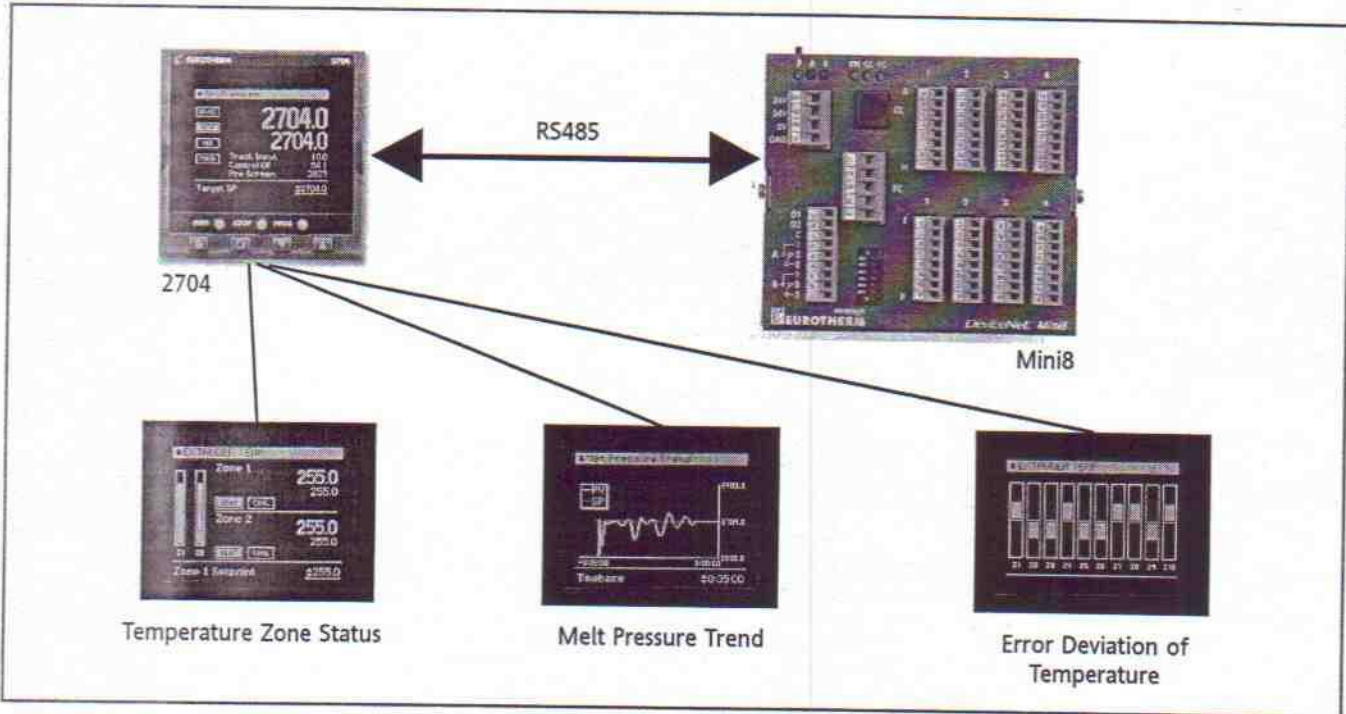


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Extrusion control system

In combination with the Mini8 DIN rail controller, a very powerful low cost extrusion control system can be implemented. The 2704MP acts as the master melt pressure controller. It also provides an operator interface to view parameters and change setpoints of the temperature zones implemented in the Mini8. Each Mini8 base unit

can implement up to 8 control loops. 10 temperature zones can easily be displayed and supervised by the 2704MP. Additionally, extra parameters such as extruder Amps and RPM can be measured by the Mini8 and displayed on the 2704MP. For more information on the Mini8 please refer to data sheet number HA028480.



2604 Controller

A 2604MP is also available providing the basic melt pressure functions offered by the 2704MP. It has a simpler, less configurable display; suitable in applications where the more informative 2704MP display or communication to slave controllers is not required.



3508 Slave Controllers

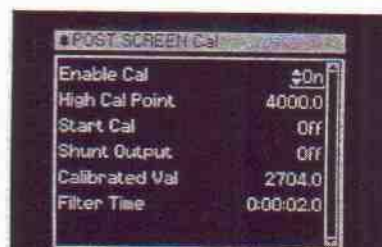
The 2704 can be used as a master to a number of model 3508 slave temperature controllers. Each 3508 can switch up to 29 setpoints by using the multiplexor blocks. Setpoints can be selected automatically via the 2704MP user interface, therefore providing a simple recipe management system.



Transducer calibration

The input signals and display range can be specified at time of order to suit the measurement range.

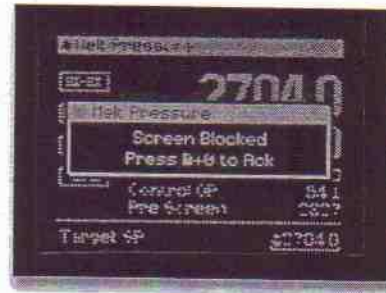
Following installation, the operator can then perform a user shunt calibration. Gain and offset adjustments are simply made by initiating an automatic calibration routine using the front panel operator interface. The 2704MP can accommodate transducers with or without an incorporated calibration resistor.



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Pressure alarms

Four alarms are pre-configured and ready for use. A high alarm, high-high and low alarm for the main melt pressure measurement and a differential alarm between the two pressure measurements to indicate blockage of the screen. The output of this alarm can be used to initiate an automatic screen change.



Field communications

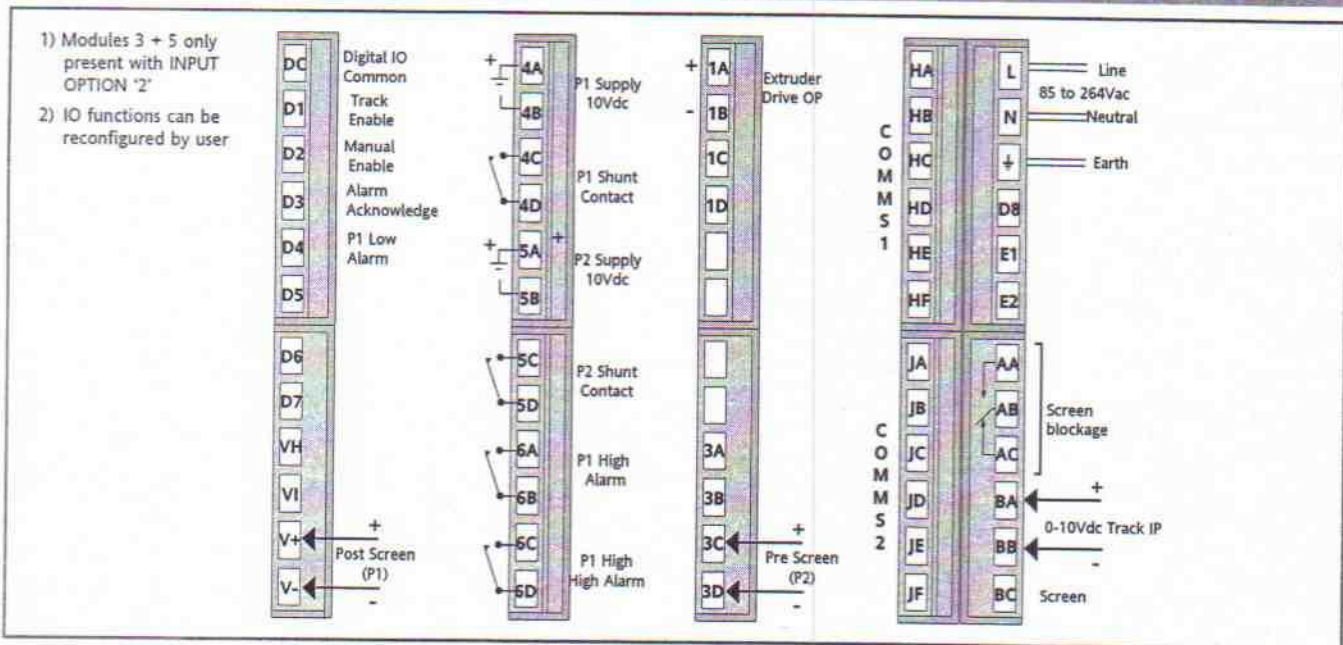
The modular build of the 2704 provides the user with a selection of communication protocols. Modbus RTU, Profibus and DeviceNet are all available for connection to supervisory computers or programmable logic controllers.

Additionally, a Modbus master port can be used to communicate to a host of devices including Series 2000 temperature controllers.

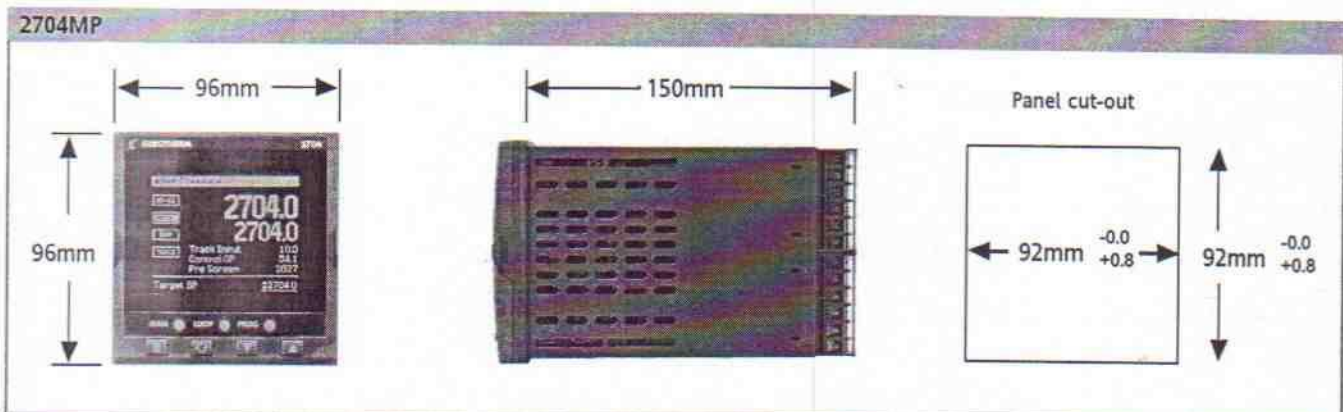
Start up options

When the controller is powered up the control output can be set to start up in manual mode with a minimum output power demand. The operator can then increase the extruder speed using the front panel operator interface. Alternatively, the instrument can start up in track mode, where the control output is modified directly via an external 0-10Vdc input. Transition from both manual and track to automatic mode is bumpless.

REAR TERMINAL CONNECTIONS



DIMENSIONAL DETAILS



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iTools - Configuration and Monitoring Software

- A complete engineering studio for **Configuration; Data logging; Communications; Monitoring software**
- Designed to aid configuration of all 2000 and 3000 series and Mini8@ controllers
- Click **Downloads** above to download

iTools is a versatile suite of software tools to allow configuration and monitoring of all Eurotherm 2000 and 3000 Series and Mini8 controllers.

It also provides runtime monitoring of the 6000 Series graphic recorders. It is capable of editing, storing and 'cloning' complete controller configurations as well as setting up data logging, process monitoring and Ethernet and modem connections.

Graphical Wiring Editor

The Graphical Wiring Editor uses a simple 'drag and drop' graphical interface to simplify the configuration of 3500, Mini8 controller, 2604 and 2704. Terminal wiring dynamically maps the rear terminal panel setup to the current instrument configuration.

View Builder

View builder allows creation of customized screens to provide a simple visualization of your process.

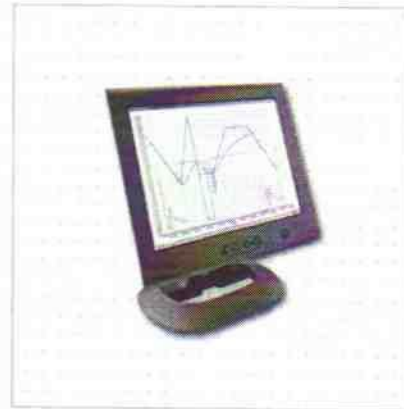
OPC Server

The OPC® Server can connect to remote instrumentation via the internet and read and write values to supervisory packages such as Wonderware@ or LabVIEW™.

- OPC Data Access 2 server
- Modbus TCP to Modbus serial gateway
- Remote PC access internet/intranet to iTools OPC server
- Automatic network scanning and device detection
- Can integrate any Modbus RTU communicating device
- Includes advanced communication diagnostic and monitoring tools

Following options via a software code:

- Open OPC Server for use by 3rd party software
- Trends enabled (OPC Scope)
- View builder
- Standalone setpoint programmer editor
- Foreign language support



FEATURES:

- Configuration wizards step the user through pages to aid configuration of a number of Eurotherm controllers
- Graphical wiring editor - simple 'Drag & Drop' wiring
- Pre-configured function blocks
- Access to real time monitoring
- Cloning - existing instrument configurations can be cloned to other devices
- Terminal wiring visualisation - termination display that automatically updates to reflect the current instrument setup
- Data logging and trending
- OPC client to provide trend and view live data
- Scalable time axis 1 min to 1 month
- Setpoint program editor - simple setup of setpoint profiles
- Store, retrieve and download program files
- Unlimited program storage
- Online and offline editing
- Device and watch recipe editor
- Configure a recipe parameter list
- Monitor any parameter
- OPC Server
- View Builder/ Runner
- Remote connection