

The image shows a Siemens industrial control panel with a multi-zone temperature control interface. The screen displays '1000 Temperature Control' and is divided into eight zones (Zone 1 to Zone 8). Each zone has a setpoint, actual, and maximum temperature displayed, along with a bar chart showing the temperature profile. The panel is labeled 'TOUCH' on the right side.

siemens.com/plastics

Extrusion

Innovative TCP 3000 temperature control for extrusion, injection molding and blow molding

Are you looking for a largely preconfigured solution that allows you to save time and expense when equipping your extruder?

Then you should take a look at our optimized temperature controller TCP 3000.

The TCP 3000 covers all essential properties of a new state-of-the-art temperature controller, making your plastics machine simpler and more economic.

With the TCP 3000, you can depend on an innovative standard solution, based on our extensive know-how.

Your benefits

- Highest degree of flexibility
- Simple and clear operator screens
- Structured and comfortable operation
- Ease of scalability of temperature zones by using optimized software structures
- Use of standards for optimized performance of operator panels and decentral I/Os

Putting you in the picture

The TCP 3000 offers standard operator screens. You can simply and quickly customize these to address your specific requirements using our state-of-the-art WinCC Comfort visualization software. The new 12" TP1200 and 15" TP1500 Comfort Panels - or larger - form the basis.



Answers for industry.

Your operators, technicians and service engineers have a range of screens at their disposal for easy, convenient working, such as:

- Graphic diagram for temperatures and trend analysis
- Timer clock
- Limits
- Controller settings/two-state or three-state controller
- Separate parameters for heating and cooling
- Multi-zone self-optimizing
- Wire break monitoring with programmable controller response
- Tolerance- and control-loop-monitoring
- Adaption of parameters for fast controller response to a failure

Temperatures under control:

Separate parameter sets for heating and cooling zones leave no temperature unregulated. For fast setting of the control parameters a multi-zone-autotuning function is integrated:

- Synchronized auto tuning of coupled heating and cooling zones
- Optimizing of the control parameters even in the operating point

Integrated economy functions enhance the economic feasibility of the temperature control:

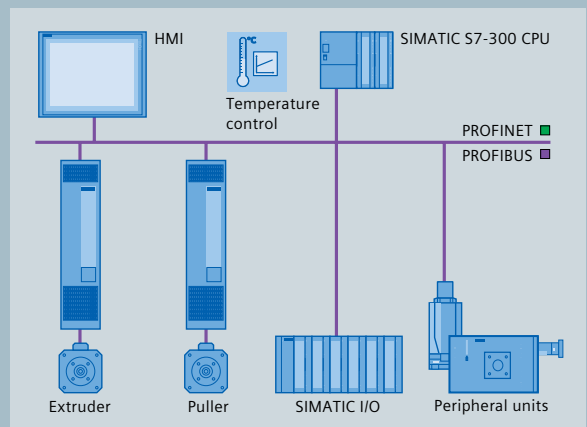
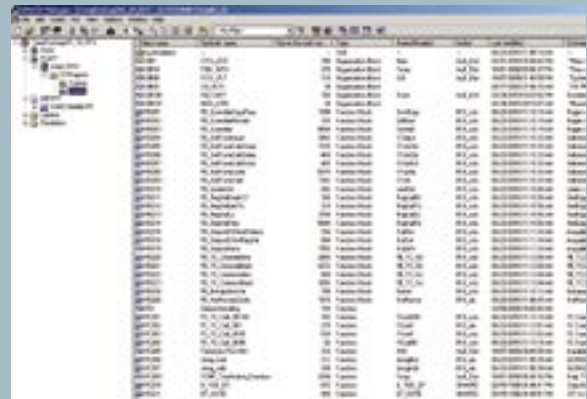
- Getting the end temperatures for all temperature zones simultaneous reduces the power consumption for heating-up
- Limiting the maximum current for the temperature zones results in lower power cost

The TCP 3000 is completed by a heating current monitor with single or group logging and voltage compensation. To get the optimum the TCP 3000 is amended with the system SIPLUS HCS300i. Even using watercooling at the temperature zones does not pose a problem for the TCP 3000.

STEP 7: The engineering tool

The TCP 3000 solution is supported by impressive features from the standard SIMATIC software. This is open and easy to handle and needs no special high-level programm knowledge. During parameterization, the TCP 3000 can be adapted very quickly to your machine configuration.

All components are globally available and CE- and UL-tested.



Ordering data	Order number
Application TCP 3000 Initial License TCP 3000 Runtime License	A4027462-A0443 A4027462-A0444
Controller SIMATIC CPU315-2 PN/DP	6ES7315-2EH14-0AB0
Operator devices TP1200 Comfort Panel TP1500 Comfort Panel	6AV2124-0MC01-0AX0 6AV2124-0QC02-0AX0

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