

MAXIMUM CONTROL WITH MINIMUM FOOTPRINT

The *TempMaster* M1 controller maximizes injection molding performance of any hot runner with the advanced features of a touch screen unit but with an optimized minimum footprint. All TempMaster controllers feature the **NEW** APS (Adaptive Process System) technology providing faster processing and response speed.

BENEFITS

Out-of-the-box user friendly

- ✓ Intuitive touch screen with adjustable viewing angle
- ✓ Automatic tool diagnostics feature ensures optimal hardware configuration & performance
- ✓ Standard cable set included

Optimizes the performance of any hot runner system

- ✓ Unique low voltage soft-start method to maximize heater life
- ✓ Uniform startup feature for reduced scrap and energy usage
- ✓ APS (Adaptive Process System) control algorithm
- ✓ Phase angle or burst firing modes (time proportional, zero-crossing)

Plug and play system architecture

- ✓ Patented "all-in-one" control card designed for reliability
- ✓ Modular 6 zone cards, 15 amps per zone
- ✓ Field calibration mode
- ✓ Universal power supply

Future now technology

- ✓ State of the art, color touch screen display
- ✓ Advanced micro controller technology
- ✓ Continuous ground fault and current measurement

High quality, robust design

- ✓ Compact solid metal enclosure
- ✓ Heavy duty industrial connectors
- ✓ Mold and controller protection features
- ✓ On-board heater and thermocouple fuses
- ✓ Portable stand available



▲ Portable stand available

▲ Easy access to cards



▲ TempMaster M1 controller M1-L unit

NEW M1 Plus model features a larger 7" high resolution screen with enhanced features including leak detection, larger tool stores and sequential tool start up. **TempMaster series M1plus**

TempMaster M1 Controller Specifications

User Interface	Full color LCD touch screen on all HMI models
Display Size	5.7" QVGA
Calibration Accuracy	0.5°C / 1°F
Control Accuracy	+/- 0.5°C / 1°F
Power Response Time	8.3 ms at 60 Hz
Control Algorithm	APS (Adaptive Process System)
Degree (F or C)	Software selectable
Thermocouple	J or K-Type, software selectable
Operating Range	0 - 472°C or 32 - 882°F
Output Voltage	Maximum 264 VAC
Supply Voltage	200/240V Delta or 380/440V 3Ø Star
Frequency	50 - 60 Hz automatic switching
Ambient Temperature Range	5 - 45°C (41 - 113°F)
Humidity Range	Up to 95% non-condensing
Ground Fault Detection	40mA per zone
Power Control	Phase angle or burst firing modes (time proportion, zero-crossing)
Overload Protection	Semi-conductor fuses on both heater legs
Control Modes	Closed loop (Auto), open loop (manual), standby, boost mode, slave mode
Alarm Output	Closing contact relay, max. 5A, 230V
T/C and Power Connector	HAN 24e
LED Indicators	Fault, Scan
Soft-Start with Auto-Tune	Using unique low voltage method for heater safety
Input Protection	Plug in nano fuses on both TC legs
Ports	USB (remote USB optional)
Controller includes 15ft (4.8m) cables	

Cabinet sizing	Slots	# of Zones	Dimensions (W x D x H cm)
M1-12	2	max. 12 zones	35 x 51 x 22
M1-24	4	max. 24 zones	35 x 51 x 28
M1-48	8	max. 48 zones	35 x 51 x 50

