GLC 2k

Hot Runner Temperature Control Systems

Global Hot Runner Control Solutions

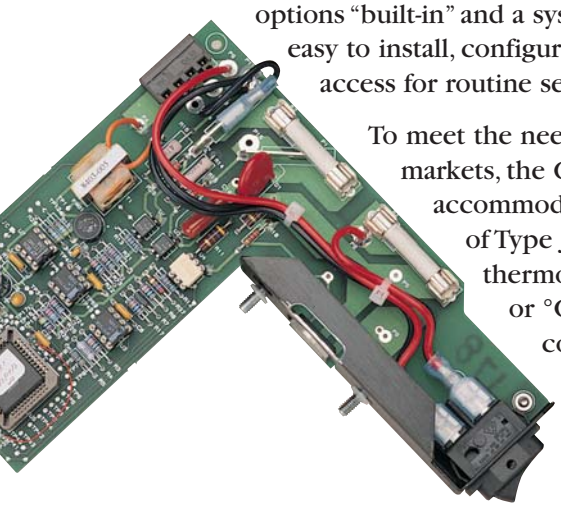
Gammaflux®

Hot Runner Controls with Unmatched Performance and Value

An Advanced Hot Runner Temperature Controller for Global Markets

The Gammaflux GLC 2K Hot Runner Temperature Control system is a compact, industry hardened and attractively styled controller based upon single zone integrity using microprocessor based temperature control modules. This product is affordably priced yet features the same Gammaflux quality you have come to expect over the years.

The modular enclosure packaging of the GLC 2K allows for a very small "footprint" of 18¾" width by 9" height by 15" depth (476 mm X 229 mm X 381 mm). Each compact enclosure can accommodate up to 12 microprocessor controller modules, each rated at 15 amperes. Each control module uses the Gammaflux proprietary PID² control algorithm. This algorithm is time tested and proven on hot runner systems around the world. The GLC can be configured up to 36 zones housed in a 3 tier enclosure by linking to the base modular package. Customer input to the design process has yielded a system with all options "built-in" and a system housing that is easy to install, configure in the field and access for routine service.



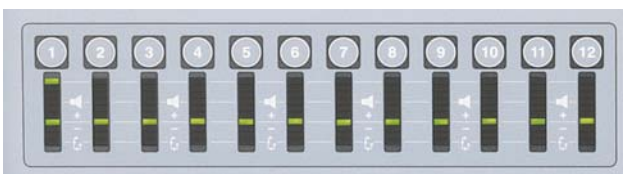
To meet the needs of international markets, the GLC 2K accommodates field selection of Type J or Type K thermocouples, °F or °C temperature configuration, and either delta or wye style of main input power.

This standardized product package has also been designed to meet the growing trend for quick delivery and in field flexibility on a global basis. The GLC 2K represents a product that is as close to an "off-the-shelf" control system as is possible – but unlike other off-the-shelf systems, it can be easily customized to meet each molder's unique requirements.

Designed for Ease of Use – Worldwide

Each 12 zone GLC 2K controller includes a unique operator's interface featuring icons to identify the control functions, process values and alarm status, in a simple and easy to understand format. These icons allow for the application of the GLC 2K on a global basis. All hot runner set up and mold performance and monitoring information is accomplished by using the operators interface panel located on the front of the enclosure. GLC 2K users can even program in their temperature deviation alarm band to meet their specific process or material requirements. Control zone identification can be created in whatever format the user wants (alpha, numeric, etc.)

Eight mold status alarms for each zone are located on the operator's panel interface for quick and easy identification of any mold process disturbance. The alarm status center continuously monitors all thermocouples, heater power and the mold temperatures. There is no scrolling required to access any of the alarm functions.



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Also included on the operator's panel interface is a 12 zone "Quick Glance" LED array showing the performance of each zone. If all indicator segments in this section of the operator's panel are green, it is a quick and easy way for the operator to know immediately that the controller is operating within performance specifications. Any red segment is an indication that there is an upset to the process.

System Supports Diagnostic Software

The GLC 2K supports digital communication via either an RS-232 or RS-485 interface. The product has even been developed to work with Euromap 17 communications protocol and to utilize the GammaVision® supervisory software package. GammaVision® provides data gathering and reporting, as well as industry-standard Gammaflux software packages such as Field Calibrator and a special version of Mold Doctor® for application diagnostics.

GLC 2K Features

Core Description
- 36 Maximum zones
- 2 year warranty
- Modular design
- Automatic/manual control (selectable by zone)
- Adaptive PID² control algorithm
- Algorithm is executed 20 times per second
- Extended tuning ranges (fast/slow) (selectable by zone)
- Phase angle firing
- Wet heater bakeout
- T/C resolution 0.2 degrees F over full scale
- Zone on/off (Selectable by zone)
- Delta/wye convertible option
- Degree F/C (field selectable)
- Thermocouple J/K (field selectable)

Actual Values
- Actual temperature
- % output
- Deviation from set point
- Amps

Alarms
- High temperature (adjustable)
- Low temperature (adjustable)
- Thermocouple pinched (adjustable time) (selectable by zone)
- Thermocouple open (remembered % output)
- Thermocouple reversed
- Open fuse
- Shorted heater
- Open heater

Operational Features
- 4 Menu Storage
- Instant Grouping
- Boost (selectable time/amount)
- Trim
- Slaved power up (enable/disable)
- Automatic set point limit
- Security levels
- On power up "on" or "off"

Software Features
- Gammavision (SPC data/graphing) (laptop/PC required)
- Mold Doctor (advanced troubleshooting) (laptop/PC required)
- Field Calibrator (laptop/PC required)
- Networking

Cable Connections on Enclosure
- HBE 16/24/48 or DME standard
- PowerTECH modular connector (some limitations apply)
- Custom Connectors (some limitations apply)

Inputs
- Standby (also manually activated)
- Control inhibit (voltage to activate)

Outputs
- Resettable alarm output
- Non-resettable alarm output

Gammaflux®
Global Hot Runner Control Solutions

Since 1966 GAMMAFLUX has been the premier manufacturer of temperature control systems for hot runner injection molders. In addition to producing the most advanced temperature control and tool fault detection systems in the marketplace, GAMMAFLUX technology is available in a variety of temperature controllers that can accommodate any budget.

GLC 2K Specifications

Performance Specifications

Thermocouple Calibration Accuracy:	0.2°F (0.1°C)
Control Accuracy:	± 1°F (± 0.5°C)
Power Response Time:	8.5 msec. or one half line cycle at 60 Hz
Process Sampling:	50 msec. or 20 times per second
Control Algorithm	Proprietary PID² with adaptive tuning
Degrees F or C:	Field Selectable
Operating Range:	0-932°F (0-500°C)
Output Voltage:	0-240 VAC, phase angle fired
Standby Temperature:	User Selectable (0-600°F, 0-315°C)
Interlocking Features:	120-240 VAC input to activate

Input Specifications

Thermocouple:	Type J standard; Type K selectable (grounded thermocouples only)
Cold Junction Compensation:	Internal to enclosure
External Resistance:	10 Meg. Ohms
Temp. Variation Due To T/C Length:	None

Electrical

Input Voltage:	160-265 VAC Delta, 160-265 VAC Wye
Frequency:	47-53 Hz, 57-63 Hz
Ambient Temperature Range:	32-115°F (0-45°C)
Humidity Range:	10-95% non-condensing
Output Module Rating:	240V: 1 zone - 15 Amps/3600 Watts per zone (1 slot) 1 zone - 30 Amps/7200 Watts per zone (2 slots)

Performance Standards

U.S., Canadian and International:	CE Mark I.E.C. 801-1, 801-2, 801-3, 801-4 *Safety UL-508, UL-873 and CSA

CE

*Designed to meet

Physical Specifications

Item	Width		Depth		Height	
	(dimensions in inches/millimeters)					
GLC 2K Single	18¾	476	15	381	9	229
"MSGS" – Mobile Stand Single Tier	24	610	24	610	41	1041
GLC 2K Multitier cabinet	21	533	21	533	27⅞	708
"MSGM" – Mobile Stand Multitier	25½	648	26	660	35½	902

Specifications subject to change without notice.

User's Cards

Basic and Advanced User's Cards ease system operation and are available in a variety of languages.

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