

Hotrunner Control

Control System for the Plastics Industry



Controlling injection moulding hotrunner systems is an art when processing engineering materials or products of intricate design. We designed a modular hotrunner system based on the Gefran 600 controller, making the control of moulds both easy and affordable. Models from 3 to 12 zones per unit are available.

Benefits

- **Self-tuning PID** - accurate control to within a degree or two, even on micro hotrunners with very low thermal inertia.
- **Softstart** - user programmable, superior exponential algorithm, variable time allows sufficient drying time to lengthen element life.
- **Self-checking** - during operation the UniCon600 continuously monitors vital functions: thermocouples, heating elements, SSR switching devices and cabling.
- **Alarm and fault indication** - temperature alarm configurable per zone. Alarm can be set as Hi, Lo or Deviation alarm. Heater-break alarm senses a heating element open circuit condition. Relay fault alarm indicating solid state relay failure. Fuse alarm senses a blown ultra rapid fuse.
- **Modular** - zone modules can be exchanged under power while the system is running, no downtime.
- **Manual operation** - any zone can be switched to manual control should a thermocouple fail, automatic switchover can be pre-programmed to prevent downtime.
- **Easy to maintain** - controllers, SSR's and fuses are standard devices, easy to obtain, quick to exchange.
- **Rear extractor fans** - provides sufficient cooling under full load operation (6 and 12 station).
- **Heavy duty connector plugs** - are fitted to the rear of the enclosure. The female socket is used for heater element output. The male socket is connected for Type J sensor input wiring, preventing thermocouple damage.

Standard Stock Items

Stock Code	Description
UniCon600 controllers	
UCH-UNIC600-01	1 - zone controller
UCH-UNIC600-02	2 - zone controller
UCH-UNIC600-03	3 - zone controller
UCH-UNIC600-04	4 - zone controller
UCH-UNIC600-06	6 - zone controller
UCH-UNIC600-08	8 - zone controller
UCH-UNIC600-10	10 - zone controller
UCH-UNIC600-12	12 - zone controller
Accessories:	
UCH-UN1-PS600	Power supply module
UCH-UN1-CTRL600	Control module with 10A ultra-rapid fuse; 25A SSR 600-R-D-N-0-1
RCH-MOD-6/12-7	Blanking plates to cover unused station openings
Cables *:	
UCH-CABLE-H04-03	Heater+sensor cable for 1.-station, 3m
UCH-CABLE-H06-03	Heater cable for 2...3-zone, 3m
UCH-CABLE-H16-03	Heater cable for 4...6-zone, 3m
UCH-CABLE-H24-03	Heater cable for 7...12-zone, 3m
UCH-CABLE-S06-03	Sensor cable for 2...3-zone, 3m
UCH-CABLE-S16-03	Sensor cable for 4...6-zone, 3m
UCH-CABLE-S24-03	Sensor cable for 7...12-zone, 3m

*Other | Cable Lengths available on request

Technical Specifications

Size:	12 zone controller - 565mm w x 350mm d x 300mm h, weight 27kg excl. cable set 6 zone controller - 565mm w x 350mm d x 165mm h, weight 14kg excl. cable set 3 zone controller - 340mm w x 350mm d x 165mm h, weight 10kg excl. cable set
Per Zone:	10A, 2.3kW per channel 10A ultra-rapid fusing per channel 25A solid state relay switching each channel
Total Rating/Power Requirements:	12 zone - 3-phase, 230V / 25A with neutral (17kW max. combined load) 6 zone - 3-phase, 230V / 20A with neutral (13kW max. combined load) 3 zone - 1-phase, 230V / 16A with neutral (3.5kW max. combined load) (Racks with higher power ratings or zones with increased power output are available as an option)
50mA fusing on the thermocouple sensor input.	
Ambient temperature 50°C max.	
Storage temperature 50°C max, 85% RH non-condensing.	