Hotrunner Control

control system for the plastics industry

Controlling injection moulding hotrunner systems is an art when it comes to processing engineering materials or products of intricate design. Unitemp has 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 rack are available.

Benefits

- **self-tuning PID** - accurate control to within a degree or two, even on microhotrunners 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 the 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 an open circuit condition on the heating element. Relay fault alarm indicating solid state relay failure. Fuse alarm senses a blown ultra rapid fuse condition

- **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

- **easy to maintain** - controllers, SSRs and fuses are standard devices, easy to obtain, quick to exchange.

- **rear extractor fans** provides sufficient cooling under full load operation (6 & 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.

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	Heater+sensor cable for 1.-station, 3m
UCH-CABLE-H06	Heater cable for 2...3-zone, 3m
UCH-CABLE-H16	Heater cable for 4…6-zone, 3m
UCH-CABLE-H24	Heater cable for 7...12-zone, 3m
UCH-CABLE-S06	Sensor cable for 2...3-zone, 3m
UCH-CABLE-S16	Sensor cable for 4…6-zone, 3m
UCH-CABLE-S24	Sensor cable for 7...12-zone, 3m

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 option)

50mA fusing on the thermocouple sensor input.

Ambient temperature 50°C max.

Storage temperature 70°C max, 85%RH non-condensing

unitemp reserves the right to make any kind of design or functional modification without prior notice.

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Johannesburg:

Unitemp cc. P.O Box 1035,
Isando, 1600

Street Address:
7 Vuurslag Street, Spartan Ex7,
Kempton Park

Tel: ++27 11 392 5989
Fax: ++27 11 392 5235

Cape Town:

Unitemp cc. P.O Box 24110,
Lansdowne, Cape Town, 7779

Street Address:
47 Flamingo Crescent, Lansdowne,
Cape Town, 7780

Tel: ++27 21 762 8995
Fax: ++27 21 762 8996

sales@unitemp.com

www.unitemp.com

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