

Net Master Controller

MULTI-DEVICE NETWORK CONTROLLER

APPLICATIONS

- Induction Heating Process Automation
- Networked Control of Multiple Inductive Heaters and Optical Pyrometers
- Manufacturing Automatic Machinery and Robot Systems
- On-line Control and Certification of Inductive thermal processes

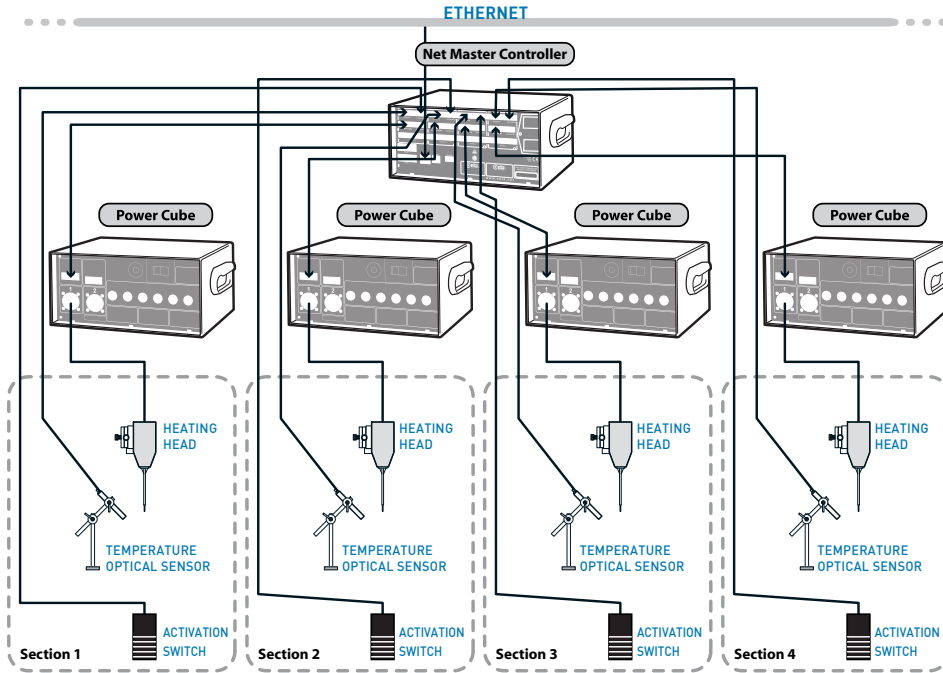


- **Accurate Management of up to Four Independent Thermal Processes**
 - > Four Power Cube Generators
 - > Four Optical Pyrometers or Thermocouples
- **Thermal Profile Quality Control**
 - > Up to 20 Programmable Temperature and Time Segments per Process
 - > Maximum Power Output Programmable for Each Individual Segment
 - > Temperature Tolerance Window Programmable for Each Individual Segment
 - > Out-of Tolerance and End-of-Cycle Outputs for Each Process
- **Full Logging Capability with Programmable Sampling Time**
 - > Date, Time, Temperature, Power of Each Individual Process
 - > Cycle Quality Certification Through Logging of All Working Parameters
- **External Management, Control of the Heating process and Log Files Acquisition through integrated web Server**
- **Field Bus Interface available on request**
- **Compliant with the applicable Regulations on Electrical Safety and Electromagnetic Compatibility**

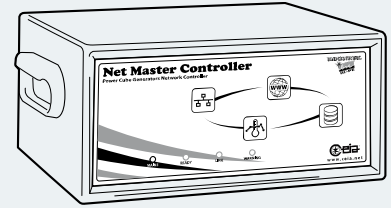
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MULTI-DEVICE NETWORK CONTROLLER

APPLICATION EXAMPLE WITH FOUR GENERATORS AND FOUR HEATING HEADS



EXTERNAL CASE



Stainless steel construction	
Dimensions (WxDxH)	10.83" x 10.43" x 5.51" (275 x 265 x 140 mm)
Weight	9.92 lbs (4.5 kg)
Power supply cable	8.53 ft (2.6 m)

TYPICAL APPLICATIONS

- SHRINK FITTING
- TIN SOLDERING
- TEMPERING
- ANNEALING
- BRAZING
- BONDING
- CAP SEALING
- HOT FORMING
- CURING
- LOCALIZED HEATING
- METAL GLASS SEALING
- PLASTIC REFLOW

TECHNICAL DATA

POWER SUPPLY	Supply voltage	180 ÷ 260 Vac, monophase - 50/60 Hz
	Max Power Absorption	60 W
SAFETY FEATURES	Power supply voltage galvanically insulated	
	Low operational voltage: no danger to the operator	
OPERATING CONDITIONS	Operating temperature	41°F to 131°F (+ 5 to + 55°C)
	Storage temperature	-13°F to 158°F (- 25 to + 70 °C)
	Relative humidity	0-95% (without condensation)
WORKING REGIME	Up to 4 PowerCube generators with a single heating head each (simultaneous heating on four heads)	
	Up to 2 PowerCube generators for the alternated heating of two heads each.	
FUNCTIONING MODES	MANUAL	
	THERMAL PROFILE	Functioning with thermal profile
CONTROL INPUTS	4 inputs for the CEIA optical pyrometers	
	4 isolated binary inputs for the thermal cycle activation switches	
	4 isolated binary inputs for the working cycle stop	
	4 analog inputs for external temperature sensors	
	4 analog inputs 0-10V for output power control	
	4 isolated binary inputs for the working cycles start in manual mode	
	4 isolated binary inputs for general purpose use	

OUTPUTS FOR EXTERNAL DEVICES ACTIVATION	4 serial outputs for the connection up to four Power Cube generators	
	4 outputs (open collector, 12/24Vcc; 500mA) for "Generator ON" signal	
	4 outputs (open collector, 12/24Vcc; 500mA) for "Piece in temperature" signal	
	4 outputs (open collector, 12/24Vcc; 500mA) for "Piece cold" signal	
COMMUNICATION INTERFACE	4 outputs (open collector, 12/24Vcc; 500mA) for "End of cycle" signal	
	4 outputs (open collector, 12/24Vcc; 500mA) for "Temperature out of tolerance" signal	
	4 outputs (open collector, 12/24Vcc; 500mA) for "Device ready" signal	
	4 isolated binary outputs for general purpose use	
	1 RS232 asynchronous serial port for connection with external PLC or controller	
	Ethernet 10/100 Mb	
	MANAGEMENT AND CONTROLS	Work cycle activation through pedal, external logic or RS-232
		Adjustment heating power (1% of resolution) heating temperature (1°C of resolution)
SELF-DIAGNOSIS	Temperature control Through optical pyrometer	
	Control loop time 0.5 milliseconds	
	SH15/SL time constant 0.1 milliseconds	
	Check of temperature and on the cooling water presence	
	Correct inductor dimensioning check	
	Internal malfunction	
	Working cycle malfunction	
	Programming access control through a password	
	Power Cube connection	
	Generators parameter screenshot	
Generator supply voltage too low		
Generator supply voltage too high		
Inductor short circuit		



CEIA USA Ltd - 9155 Dutton Drive, Twinsburg OH - 44087 USA
Phone: 330-405 3190 - Fax 330-405 3196 - e-mail: induction@ceia-usa.com

www.ceia-usa.com

Call 888-532-CEIA