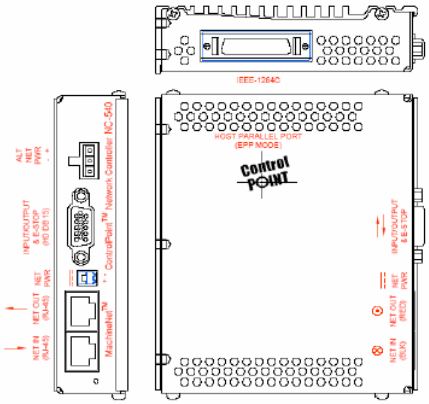
NC-540

ControlPoint™ Network Controller

More than any other single device, the NC-540 sets the ControlPoint distributed motion and I/O control system apart from other control solutions. Its design is the culmination of experience gained through several generations of Teknic's centralized and distributed control systems.



The NC-540 is the network management device that interfaces the host PC to the Motion and I/O Components that make up the distributed ControlPoint network. The NC-540 does this by mediating access (acting as a "traffic cop" of sorts) to the motion and I/O nodes from the host application. This architecture presents the entire motion and I/O system to the host software application as a single local device.

By managing the network in this way, the NC-540 allows the host application to interface to the motion and I/O system at a high-level. This eliminates the implementation challenge of managing a network, yet allows for network scalability (if you need more I/O or another axis, simply add a node). On top of making the distributed system easy to manage, the NC-540 provides interrupt capability, which improves performance and further reduces the load on software resources—resulting in faster time-to-market and a more competitive machine.

In addition to network management functions, the NC-540 provides a reliable solution for emergency stop requirements. By wiring e-stop hardware (switches, relays, etc.) into the dedicated opto-isolated input, you can control the assertion of a Node Stop command. This high-priority packet rapidly moves through the ControlPoint ring initiating a controlled stop at each motion node. The way each node is stopped is programmable and includes an emergency, maximum deceleration style as well as a controlled, ramped deceleration style for delicate loads.

SPECIFICATIONS

GENERAL	Dimensions, in (mm):	4.80 (122) x 4.049 (103) x 1.105 (28)
	Weight, oz (g):	11.75 (366)
ENVIRONMENTAL	Temperature:	0-40 Degrees C
	Humidity:	0-95%, non-condensing
GENERAL PURPOSE INPUTS	# of points per NC:	2
	# Pins per point:	4 (Positive, Negative, +5V, GND) Eliminates multi-wire crimps.
	Courtesy supply draw:	200mA
	Features:	Digital, electrically isolated (from power and each other), 5, 12, 24 VDC inputs, opto-isolation similar to a solid state relay, and direct-to-sensor wiring.
GENERAL PURPOSE OUTPUTS	# of points per NC:	3
	# of pins per point:	4 (Output, Logic return, Power return, GND). Eliminates multi-wire crimps.
	Max current per point:	200mA
	Features:	Full electrical/optical isolation, source/sink compatible, catch diode to handle inductive kick from solenoids and brakes, transistor outputs with active clamping, drives 24V inductive loads directly, built-in SSR functionality.
POWER REQUIREMENTS	Input voltage:	40 VDC
	Input current:	Depends on I/O use, 125mA unloaded
COUNTRY OF ORIGIN	Manufactured in:	USA