Highlights

Control Network, Cnet, is a high-speed data communication highway between nodes in the Symphony™ Enterprise Management and Control System. Cnet provides a data path among Harmony control units (HCU), human system interfaces (HSI), and computers. High system reliability and availability are key characteristics of this mission-critical communication network. Reliability is bolstered by redundant hardware and communication media in a way that the backup automatically takes over in the event of a fault in the primary. Extensive use of error checking and message acknowledgment assures accurate communication of critical process data.

Harmony rack communications encompasses various communication interfaces: Cnet-to-Cnet, Cnet-to-HCU, and Cnet-to-computer. Communication modules, in certain combinations, create the various Cnet communication interfaces.

Communication Interface Modules

Module	Description	Cnet-to-Cnet		Cnet-to-HCU[1]	Cnet-to-Computer	
		INIIR01	INIIL02		INICI03	INICI12
IMMPI01	Multifunction processor interface				•	
INICT03A	Cnet-to-computer transfer				•	
INICT12	Cnet-to-computer transfer					•
INIIT03	Cnet-to-Cnet local transfer		•			
INIIT12	Cnet-to-Cnet remote transfer	•				
INNIS01	Network interface	•	•	•	•	•
INNPM11 or INNPM12	Network processing			•		

NOTE:
1. The INNIS01 module and INNPM12 module operating in Plant Loop mode are replacements for the INLIM03 Loop Interface Module and INBIM02 Bus Interface Module.

Specifications

Property	Characteristic/Value
IMMPI01	
Power requirements	+5 VDC at 415 mA; 2.1 W
Ports	2 RS-232-C; 1 SCSI
INICT03A	
Memory	512 kbytes ROM; 2 Mbytes RAM
Power requirements	+5 VDC at 2 A; 10 W
Communication rates	User-selectable up to 19.2 kbaud (RS-232-C) or 4 Mbytes/sec (SCSI)
Tag capacity (point definitions)	30,000
INICT12	
Memory	512 kbytes ROM; 512 kbytes RAM; 128 kbytes NVRAM
Power requirements	+5 VDC at 2 A; 10 W
Ports	2 RS-232-C
Communication rates	User-selectable up to 19.2 kbaud
Tag capacity (point definitions)	10,000
INIIT03	
Memory	2 Mbytes RAM; 512 kbytes ROM
Power requirements	+5 VDC at 2 A; 10 W
INIIT12	
Memory	256 kbytes ROM; 512 kbytes RAM; 256 kbytes NVRAM
Power requirements	+5 VDC at 2 A; 10 W
Ports	2 RS-232-C
Communication rates	User-selectable up to 19.2 kbaud
INNIS01	
Memory	208 kbytes RAM; 64 kbytes ROM
Power requirements	+5 VDC at 900 mA; 4.5 W +15 VDC at 5 mA; 0.1 W -15 VDC at 200 mA; 3 W
Communication rates	
Cnet:	10 MHz or 2 MHz
Plant Loop:	500 kHz
System capability	
Cnet:	Over 62,000 nodes in the system; 250 Cnet-to-Cnet interface nodes; 250 nodes on a single network in any combination of Cnet-to-HCU and Cnet-to-computer interfaces
Plant Loop:	64 nodes
INNPM11	
Memory	256 kbytes ROM; 512 kbytes RAM
Power requirements	+5 VDC at 2 A; 10 W
Communication rates	
Controlway:	1 Mbaud
Module bus:	83.3 kbaud

Property	Characteristic/Value
INNPM12	
Memory	512 kbytes ROM, 512 kbytes RAM
Power requirements	+5 VDC at 2 A; 10 W
Communication rates Controlway: Module bus:	 1 Mbaud 83.3 kbaud
All Cnet Communications Modules	
Mounting	Occupies one slot in a standard module mounting unit
Ambient temperature	0° to 70°C (32° to 158°F)
Relative humidity	5% to 90% up to 55°C (131°F) noncondensing 5% to 40% above 55°C (131°F) noncondensing
Atmospheric pressure	Sea level to 3 km (1.86 mi)
Air quality	Noncorrosive
Certification	
Canadian Standards Association (CSA)	Certified for use as process control equipment in an ordinary (nonhazardous) environment.
Factory Mutual (FM)	Approved as nonincendive equipment for use in Class I; Division 2; Groups A, B, C, D; hazardous locations.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.