

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

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.