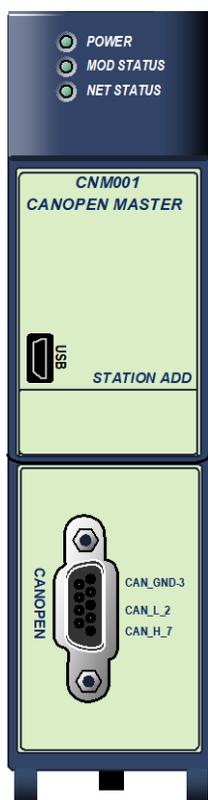


PACSystems™ RX3i

CANopen MASTER

(IC695CNM001)



Introduction

The CNM001 module allows the RX3i Controller CPU to send and receive data on a CANopen network. It can act as master for up to five devices on the CANopen network.

The module's three LEDs display its operating and communications status. A 9-pin male D-connector interfaces to the CANopen network.

A CNM001 module can be installed in any I/O slot in the main rack in an RX3i system except slot 0, or the expansion slot.

Features

- TX PDO data scanning of up to 272 bytes (Includes 20 bytes of module status and slave status diagnostics.)
- RX PDO data scanning of up to 272 bytes
- Fault logging for loss or addition of CANopen slave devices that support Node Guarding, Heartbeat protocol, or have PDO counter health status monitoring enabled.
- Slave status bit per slave address to indicate in reference memory whether devices are healthy. (For devices that support either Node Guarding or Heartbeat protocol, or have PDO counter health status monitoring enabled)

Note: In the CANopen protocol, "transmit" and "receive" are defined from the slave's point of view. This means that TX PDOs are mapped to the CPU as %AI input scan data and RX PDOs are mapped as %AQ output scan data.

Firmware Upgrades

The CNM001 module receives its firmware upgrades directly from the SYCON.net software using the USB port on the module.

CNM001 Module Specifications

Specification	Description
Mounting Location	RX3i main rack: Any slot except slot 0 or expansion slot.
Backplane Current Consumption	800mA at 3.3VDC
Hot swappable	Yes
RX3i CPU requirements	RX3i CPU Firmware version 7.70 or later

For product standards, product standards, general operating specifications and installation requirements, refer to the PACSystems RX3i System Manual GFK-2314.

Communications Specifications

Specification	Description
Maximum input data scanned by CPU	272 bytes (Includes 20 bytes of module status and slave status diagnostics)
Maximum output data scanned by CPU	272 bytes
Maximum number of supported slave devices	5
Maximum number of receive PDOs	15
Maximum number of transmit PDOs	30
Exchange of process data	Via Process Data Object (PDO) protocol transfer (synchronized, remotely requested and event driven (change of state))

Specification	Description
Functions	Node guarding / life guarding Heartbeat protocol PDO mapping Synchronization Object (SYNC) protocol (producer)
Baud rates	10 kbits/s to 1 Mbits/s
Data transport layer	CAN Frames
CAN Frame type	11 Bit

For product standards, general operating specifications, and installation requirements, refer to the PACSystems RX3i System Manual, GFK-2314.

Additional Information

PACSystems RX3i User Manuals

PACSystems RX3i and RX7i CPU Reference Manual, GFK-2222

PACSystems RX3i System Manual, GFK-2314

PACSystems RX3i CANopen Master Module User's Manual, GFK-2831

PACSystems RX3i CANopen Master Module Quick Start Guide, GFK-2832

For user manuals, product updates and other information go to the Support website, <https://www.emerson.com/Industrial-Automation-Controls/support> and refer to Controllers and IO, RX3i Controllers.

Information about CANopen

For detailed information about CANopen, contact the CAN in Automation e.V. (CiA) organization: <http://www.can-cia.org/>