## Network Communication Module (NCM)

The Network Communication Module (NCM) enables a Tricon controller to communicate with other Tricons and with external devices on an Ethernet network. The NCM provides two BNC connectors as ports: NET 1 supports Peer-to-Peer and Time Synchronization protocols for safety networks comprised of Tricons only. NET 2 supports open networking to external systems using Triconex applications (such as TriStation 1131, SOE, OPC Server, and DDE Server) or user-written applications.

The NCMG module has the same functionality as the NCM as well as the ability to synchronize time based on a GPS system.

The NCM is compatible with Ethernet (IEEE 802.3 electrical interface) and operates at speeds up to 10 megabits. The NCM and the host computer can be connected by coaxial cable (RG58) at typical distances up to 607 feet (185 meters). Distances up to 2.5 miles (4,000 meters) are possible using repeaters and standard (thick-net) cabling. For more information, contact the Global Customer Support (GCS) center.

Two NCMs can be placed in one logical slot of the Tricon controller chassis, but they function independently, *not* as hot-spare modules.

The Main Processors typically refresh data on the NCM once per scan.

For additional information, see the *Communication Guide for Tricon v9–v11 Systems* and Replacing NCMs on page 298.

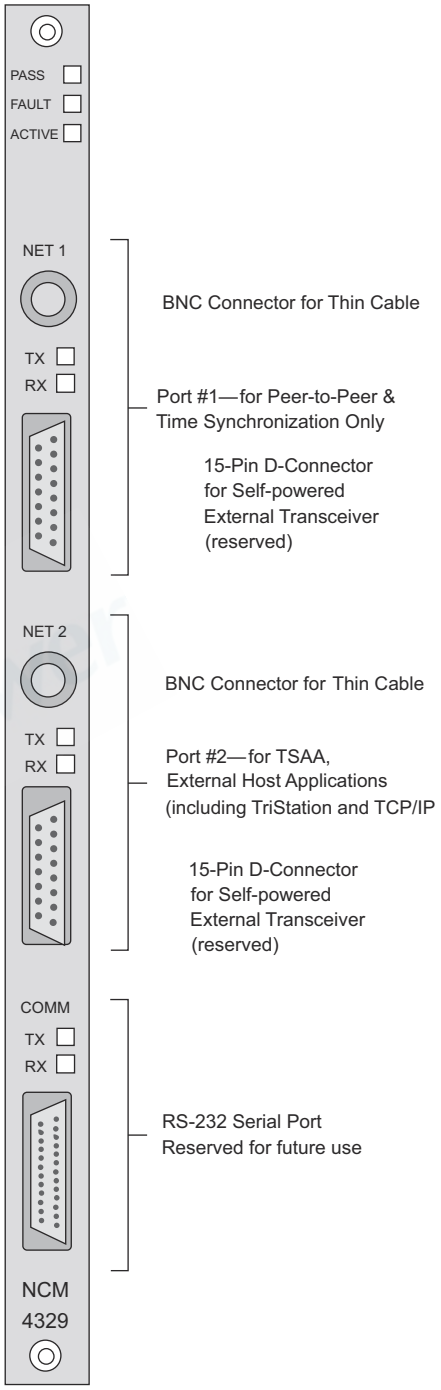



**Figure 75** NCM Front Panel



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## 4329 and 4329G Specifications

This table lists the specifications for NCM Models 4329 and 4329G.

**Table 70 NCM Model 4329 and 4329G Specifications**

| Feature | Description |
|---|---|
| Network ports | Two BNC connectors using RG58 50-ohm thin cable |
| External transceiver ports | Not used |
| Serial port | One RS-232-compatible port |
| Port isolation | 500 VDC, network and RS-232 ports |
| Protocols supported | Peer-to-Peer, Time Synchronization, TriStation, and TSAA |
| Communication speed | 10 megabits |
| Status indicator: Module status | Pass, Fault, Active |
| Status indicator: Port activity | TX (Transmit) — 1 per port<br>RX (Receive) — 1 per port |
| Logic power | < 20 watts |
| System version compatibility | Tricon v10.x or earlier systems |

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