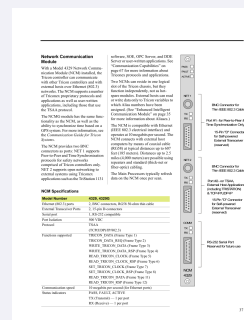


FIELD INSTALLATION QUICK GUIDE

# Installation Instructions

4329

Network communication module



|          |                                  |
|----------|----------------------------------|
| PRODUCT  | 4329                             |
| FAMILY   | Triconex safety system           |
| FUNCTION | Network communication module     |
| STATUS   | Verify exact installed equipment |

Prepared by Amikon Limited from Triconex documentation. This guide supplements the complete manufacturer manual and site procedure.

01

## CONFIRM THE ORDERED CONFIGURATION

|                           |                                   |
|---------------------------|-----------------------------------|
| Component Type            | Network communication module      |
| Order Reference           | 4329                              |
| System Platform           | Triconex safety control system    |
| Primary Function          | Connects Tricon to Ethernet hosts |
| Channel or Port Capacity  | Two network ports                 |
| Electrical Classification | IEEE 802.3 Ethernet               |

02

## PREPARATION AND CONNECTION

- Confirm the complete 4329 article number and installed revision.
- Isolate applicable electrical and process energy using the approved site procedure.
- Record every connector, cable, terminal, shield and protective-earth connection before removal.
- Install without forcing keyed parts, then secure terminals, latches, fasteners and cable supports.

### Network Communication Module

With a Model 4329 Network Communication Module (NCM) installed, the Tricon controller can communicate with other Tricon controllers and with external hosts over Ethernet (802.3) networks. The NCM supports a number of Triconex proprietary protocols and applications as well as user-written applications, including those that use the TSAA protocol.

The NCMG module has the same functionality as the NCM, as well as the ability to synchronize time based on a GPS system. For more information, see the *Communication Guide for Tricon Systems*.

The NCM provides two BNC connectors as ports: NET 1 supports Peer-to-Peer and Time Synchronization protocols for safety networks comprised of Tricon controllers only. NET 2 supports open networking to external systems using Triconex applications such as the TriStation 1131

software, SOE, OPC Server, and DDE Server or user-written applications. See "Communication Capabilities" on page 67 for more information about Triconex protocols and applications.

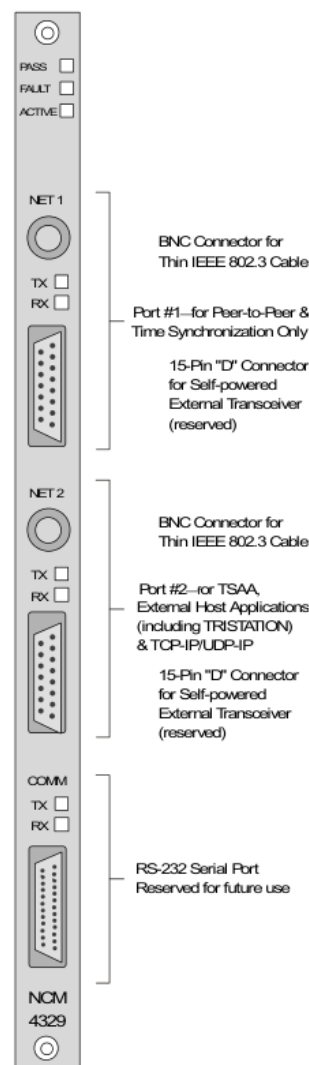
Two NCMs can reside in one logical slot of the Tricon chassis, but they function independently, not as hot-spare modules. External hosts can read or write data only to Tricon variables to which Alias numbers have been assigned. (See "Enhanced Intelligent Communication Module" on page 35 for more information about Aliases.)

The NCM is compatible with Ethernet (IEEE 802.3 electrical interface) and operates at 10 megabits per second. The NCM connects with external host computers by means of 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 or fiber-optic) cabling.

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

### NCM Specifications

| Model Number               | 4329, 4329G                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet (802.3) ports     | 2, BNC connectors, RG58 50-ohm thin cable                                                                                                                                                                                                                                                                                                                             |
| External Transceiver Ports | 2, 15-pin D-connectors                                                                                                                                                                                                                                                                                                                                                |
| Serial port                | 1, RS-232 compatible                                                                                                                                                                                                                                                                                                                                                  |
| Port Isolation             | 500 VDC                                                                                                                                                                                                                                                                                                                                                               |
| Protocol                   | TSAA<br>(TCP/UDP/IP/802.3)                                                                                                                                                                                                                                                                                                                                            |
| Functions supported        | TRICON_DATA (Frame Type 1)<br>TRICON_DATA_REQ (Frame Type 2)<br>WRITE_TRICON_DATA (Frame Type 3)<br>WRITE_TRICON_DATA_RSP (Frame Type 4)<br>READ_TRICON_CLOCK (Frame Type 5)<br>READ_TRICON_CLOCK_RSP (Frame Type 6)<br>SET_TRICON_CLOCK (Frame Type 7)<br>SET_TRICON_CLOCK_RSP (Frame Type 8)<br>READ_TRICON_DATA (Frame Type 11)<br>READ_TRICON_RSP (Frame Type 12) |
| Communication speed        | 10 megabits per second (for Ethernet ports)                                                                                                                                                                                                                                                                                                                           |
| Status indicators          | PASS, FAULT, ACTIVE<br>TX (Transmit) — 1 per port<br>RX (Receive) — 1 per port                                                                                                                                                                                                                                                                                        |



## 04 COMMISSIONING CHECKS

- 01 Confirm product identity and mechanical seating.
- 02 Verify the documented supply before energising.
- 03 Inspect polarity, shielding and protective-earth connections.
- 04 Restore power in the approved sequence and observe status indications.
- 05 Test each connected input, output or communication path.
- 06 Record diagnostics and functional-test results before return to service.

## 05 CONTROLLED DOCUMENT

|                 |                                |
|-----------------|--------------------------------|
| Official source | Tricon Technical Product Guide |
| Product record  | 4329                           |
| Manufacturer    | Triconex                       |
| Warranty        | 12 months from AMIKON          |
| Support         | INFO@AMIKON.CN                 |

AMIKON PRODUCT SUPPORT

+86-18020776786

INFO@AMIKON.CN

AMIKONG.COM