

LON-BASED LINKNET

Installation Instructions

9905-971

Woodward 16-Channel Discrete Input Module

CHANNELS	INPUT	NETWORK	ADDRESS
16	24 VDC discrete	LON LinkNet	7

01 PRODUCT VERIFICATION

Product model	9905-971
Brand	Woodward
Product	16-Channel Discrete Input Module
Product model	9905-971
Manufacturer	Woodward
Product family	First-generation LON-based LinkNet
Module type	Discrete input module
Input channels	16

02 BEFORE INSTALLATION

- Confirm the 9905-971 marking, 24 VDC input function, and controller application before replacement.
- Set the two rotary switches to the network address defined by the application program; the documented address for this module is 7.

The selected official source page is retained for connection or installation context. Use the current controlled manufacturer document for final work.

Manual 26043

723PLUS Performance Control '598'

Appendix B. LinkNet® I/O Network

Introduction

The LinkNet® option provides distributed I/O capabilities for the 723PLUS control system through LON #1. The LinkNet I/O modules, while slower and less powerful than on-board I/O, are well suited for functions which are not time-critical, such as sequencing and monitoring.

Network Architecture

An I/O network consists of the 723PLUS LON #1 channel, which provides independent network trunks of up to 9 I/O modules. The LinkNet I/O modules, or nodes, on each trunk are attached to the 723PLUS via a single twisted-pair wire (see end of this Appendix for correct wiring geometry).

Each LinkNet I/O module has two rotary switches that are used to set its network address. On installation, these switches must be dialed so that the I/O module's network address of 1–9 matches the network address defined for this I/O module in the application program. The I/O modules may be placed in any order on the network, and gaps are allowed in the address sequence.

Hardware

Each network consists of one LinkNet channel of a 723PLUS and many I/O modules. The I/O modules include thermocouple inputs, RTD inputs, 4–20 mA inputs, and discrete inputs as well as 4–20 mA and relay outputs. All of the analog modules consist of six channels per module. The Relay Output module contains eight channels, and the Discrete Input module has 16 channels.

Each I/O module is housed in a plastic, field-termination-module-type package for DIN rail mounting. The LinkNet I/O modules can be mounted in the control cabinet or in any convenient location in the vicinity of the engine that meets the temperature and vibration specifications.

I/O Module Specifications

Accuracy

1% at 25 °C without field calibration

Power Supply Input

18 to 32 Vdc

Isolation

Network to I/O channel: 277 Vac

Power supply input to network: 277 Vac

I/O channel to I/O channel: 0 V

Power supply input to I/O channel: 500 Vdc except for discrete inputs, discrete input power comes directly from power supply input

04 INSTALLATION SEQUENCE

01

Confirm the 9905-971 marking, 24 VDC input function, and controller application before replacement.

02

Set the two rotary switches to the network address defined by the application program; the documented address for this module is 7.

03

Use shielded twisted-pair LinkNet wiring and the approved network geometry from the current Woodward manual.

04

Power-cycle as required after changing the hardware address because LinkNet nodes read their switch address at power-up.

05

Verify channel state reporting and network communication before returning the control system to service.

05 OFFICIAL DOCUMENTATION

723PLUS Performance Control Manual and LinkNet Final Production Stop Notification (Manual 26043 / PCN 06988)

[Open current manufacturer source](#)

06 SUPPORT CONTACT

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