FenwalNET™ 2000
Network Interface Card

FENWAL ®
Protection Systems

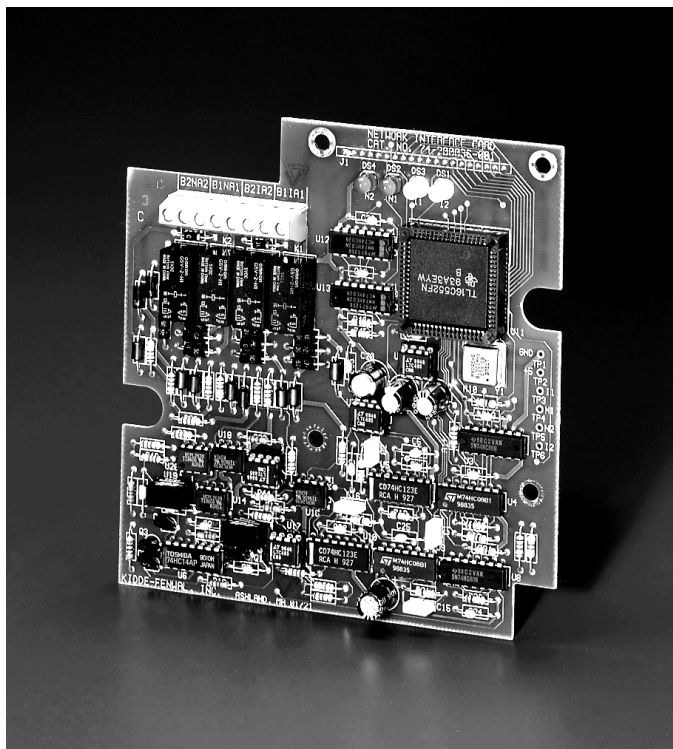A UTC Fire & Security Company

F-74-232

FEATURES

• **Networks up to 32 FenwalNET™ 2000 Control Units**
• **Peer-to-peer Network Operations**
• **Event-driven, "Masterless" Protocol**
• **Local and/or Network Display of Events at Each Node**
• **Reset and Silence Enable/Disable at Each Node**
• **Inter-node Event Output Control**
• **Class B, Style 4 or Class A, Style 7 Network Wiring**
• **Signal Regeneration at each Node**
• **UL Listed / FM Approved**

DESCRIPTION

The FenwalNET™ 2000 Network Interface Card (NIC) provides true peer-to-peer functionality when installed into the FenwalNET 2000 Control Unit. The FenwalNET 2000 Control Unit is a modular, user-configurable Control Unit that uses distributed component intelligence and a fully-digital communications protocol to control the event and time driven operations of a Fenwal fire alarm / suppression system. Individual FenwalNET 2000 Control Units can be combined into a network with the NIC. The control units coordinate their actions and reporting via an event-driven, "masterless" protocol that allows each node (i.e. control unit) to display all network events and allows an operator at each node to exercise control over crucial system functions such as reset, alarm silence and event acknowledgment, if desired. The network can also be divided into subgroups to allow vectoring of events and operator control to only the affected control units.

Initiating events on one network node can control the operation of notification appliance circuits and relay contacts on another network node, or can be propagated to all network nodes for appropriate responses. The Windows™ based FenwalNET 2000 Configuration Software Program is used to enter the operating parameters for each control unit and to enter the required interactions among the various networked nodes. Suppression system activation and operator intervention via abort switches is restricted to the control unit of origin due to the criticality of these functions.

A disabled or nonfunctional networked control unit is automatically disabled from the network and a fault message indentifying the disabled control unit is broadcast to all other affected control units. The disabled control unit does not affect the operation and/or interoperability of any of the other networked nodes.
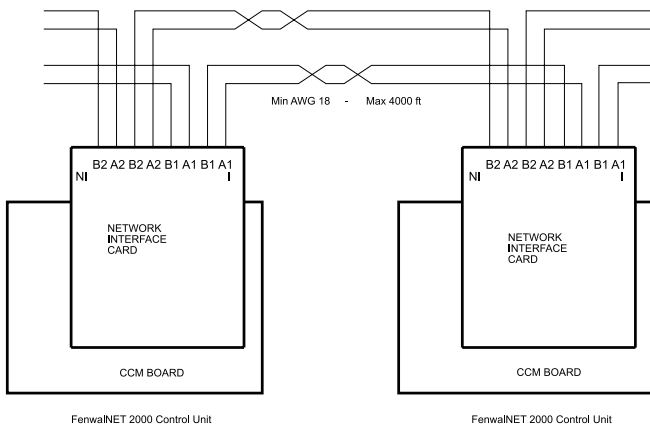

PHYSICAL

A FenwalNET 2000 Network Interface Module, when added to an appropriate Central Control Module (P/N 74-200008-501 or 74-200008-600) provides peer-to-peer interconnection for up to 32 FenwalNET 2000 Control Units.

Interconnection for Class B, Style 4 operation is accomplished using one pair of #18AWG, twisted/shielded wire. Class A, Style 7 interconnection will require two pair of #18AWG, twisted/shielded wire and provides protection against a single wire-to-wire short or open fault.

Communication is RS-485 with a maximum spacing of 4000' between Control Units and nominal 2.5 second node-to-node response with Class B, Style 4 wire. This timing increases slightly when operating on a redundant wire pair under a fault condition (i.e. Class A, Style 7).

TYPICAL SYSTEM BLOCK DIAGRAM

(Refer to the FenwalNET 2000 Installation, Operation and Maintenance Manual—P/N 74-200016-001—for additional information)

TECHNICAL SPECIFICATIONS

Input Voltage: 5 VDC

Operating Current: 250 mA

Operating Temp: $32°F$ to$120°F$ ($0°C$ to $49°C$)

Communication: RS-485 Class B, Style 4 or Class A, Style 7, 18 AWG TSP, 4000 ft. max between Fenwal-NET 2000 panels

PROGRAMMING

Field Programming: Local and network programs entered at individual panels

ORDERING INFORMATION

FenwalNET 2000 Network Interface Module Installation Kit P/N 74-200036-500.

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