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Serial Interface Module

Model NDC4/15 Features:

- Four Channel and Fifteen Channel Variants
- Modes allow two modules to operate in the same card rack to allow redundant monitoring
- Server program installed on the host computer enables communication with the module
- Front Panel led indicators display current operational status allowing the installer to check operation prior to leaving the installation

The NDC4 /15 serial data modules are intended to collect data streams from individual detectors in a compatible card rack and transmit the data in packet form to a host for use in an AVC system.

NDC4/15 Specifications

Specifications

LED display:

Front Panel LEDs display the following information:

Status:
Yellow: solid, indicates Ethernet physical link has been established but not communicating with the host

Yellow: flashing indicates no physical link established.

Green: indicates that the host and module are actively communicating with one another. TX outputs are connected to the detectors to perform outgoing detector communications.

Blue: indicates that the host and module are communicating in passive mode wherein data may be received from detectors and transmitted to the host but the TX outputs from the module are disconnected so as not to interfere with an actively communicating module in the same rack.

Streaming:
A green Led for each channel that is currently sending data.

Error:
Red Led indicates a permanent error which requires that the module be power cycled.

Reset:
The module may be reset by depressing the front panel Reset button using a non-conductive pointed implement. The module may also be reset by the application of a logic-ground true signal applied to a rack mounted external connector.

Supply Voltage:

10.8 to 14.4VDC, 175mA max

Temperature Range:

-34 C to +74 C.

Reset Outputs:

Open collector transistors are connected to the reset inputs of detectors in the card rack allowing individual detector resets to be performed remotely if required.

Mechanical:

DIN Eurocard 160.mm x 100mm with 96 pin DIN 41612C connector
Front Panel 25mm x 130mm
Handle and retaining screw extend a maximum of 15mm from front of panel.

Weight:

9 oz.

Communications:

Serial Communications at 0 – 5V levels at baud rates of 19.2 or 38.4kBaud
Ethernet 10bastT/100baseTx

Ethernet connector
RJ45 – requires crossover cable if not connecting through an ethernet switch

NDC4/15 Connector – DIN 41612 Type C - Pin Functions

Pin #	Functions
1a	D.C. (-) Common
32a	D.C. (+) Power
32c	Chassis Ground
3a/3b/3c	Detector 1 RX/TX/Reset
5a/5b/5c	Detector 2 RX/TX/Reset
7a/7b/7c	Detector 3 RX/TX/Reset
9a/9b/9c	Detector 4 RX/TX/Reset
11a/11b/11c	Detector 5 RX/TX/Reset
13a/13b/13c	Detector 6 RX/TX/Reset
15a/15b/15c	Detector 7 RX/TX/Reset
17a/17b/17c	Detector 8 RX/TX/Reset
19a/19b/19c	Detector 9 RX/TX/Reset
21a/21b/21c	Detector 10 RX/TX/Reset
23a/23b/23c	Detector 11 RX/TX/Reset
25a/25b/25c	Detector 12 RX/TX/Reset
27a/27b/27c	Detector 13 RX/TX/Reset
29a/29b/29c	Detector 14 RX/TX/Reset
31a/31b/31c	Detector 15 RX/TX/Reset
1b	Rack ID SCL
1c	Rack ID SDA
4c	Rack Position
32b	Rack Number
2a	Reset

Specifications are subject to change without notice.

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