

# NetPort

## Ethernet-based Networking Device



### Features:

- Interfaces with the ScanNet Central Management System
- Operates with a communication speed of 10 MBS on a 10 MBS network
- Offers a 64K RAM message buffer space
- Requires a two-character device address
- Capable of performing Passback Control for up to 100,000 IDs in three modes:
  - Off
  - Passive
  - Full
- Passback Control overrides:
  - Single-card basis via ScanNet
  - Optional Daily Resynchronization of all cards at a specified time:
    - one-shot resynchronization or
    - exit cycle resynchronization
- Capable of sending an unsolicited Passback message to ScanNet when it detects a passback
- Capable of communicating to and from ScanNet to set the following programming options:
  - Passback Mode
  - Resync Mode
  - Resync Time
  - Primary Area Overstay Time

### Card-Access Control

Federal APD's Netport is an innovative, microprocessor-based communication device that interfaces with Federal APD's access, parking, and/or revenue control devices. This field-proven database-control port grants ethernet access to entry/exit data for improved parking control, as integrated with existing computerized central management systems.

Designed to give you maximum control of your parking facility, Netport can control card-access to and from your parking areas, prohibiting consecutive entry or exit. This entry/exit information can then be communicated to your centralized SCAN Facility Management System or the ScanNet Central Management System – providing computerized tracking of any lot, level or zone's returns based on durations of card-usage.

### Packed With Features

Netport shall have a RS-485/RS-422 interface along an ethernet connection between communicating devices such as lane devices and the LAN network workstation. The interface includes a RJ-12 connector with selectable baud rates of 2400, 4800, or 9600 for communication with relevant devices.

Netport's innovative logic package efficiently keeps track of the duration of usage of areas, lots or zones within the facility based on the entry/exit cycles.

### Communications Interface

With two-way communications, you can program, monitor and control your parking control equipment from a centralized computer system. The interface with the Federal APD SCAN/ScanNet System gives you the control you need to maintain the security of your parking zones – and the highest possible revenues – from your parking facility.



**FEDERAL APD**

Federal Signal Corporation

# NetPort Specifications

## 1. Purpose.

The Federal APD NetPort shall be a microprocessor-based communication control device which shall provide the ability to interface Federal APD access, parking, and/or revenue control devices with a ScanNet Central Management System computer for two-way communication processes.

## 2. Features.

- a. The NetPort shall interface with the ScanNet Central Management System.
- b. The NetPort shall operate with a communication speed of 10 MBS on a 10 MBS network (effective rate depends on network traffic).
- c. The NetPort shall have 64K RAM message buffer space.
- d. The NetPort shall require a two-character device address. If more than one NetPort exists on the system, each device address must be unique. If the system has fewer than 100 NetPorts, they may be numbered 01-99. Otherwise, hexadecimal numbering is used.
- e. The NetPort shall be capable of performing Passback Control for up to 100,000 IDs. Passback is defined as a card attempting two consecutive entries into or two consecutive exits from a parking area.
  - 1) Passback Control shall have three modes:
    - a) Off. IDs are not checked for Passback.
    - b) Passive. IDs are checked for Passback, and when a violation occurs, a "passback" message is sent to ScanNet but the violator will not be prevented from entering or exiting an area.
    - c) Full. IDs are checked for Passback, and when a violation occurs, a "passback" message is sent to ScanNet and the violator is not allowed to enter or exit an area.
  - 2) Prohibited movement as a result of a Passback may be overridden in one of two ways:
    - a) On a single-card basis via ScanNet. A single-card resynchronization shall allow the ID to exit if the NetPort has received a message that it has already exited, and allow the ID to enter if the NetPort has received a message that it has already entered.
    - b) By an optional daily resynchronization of all cards at a specified time. The user, via ScanNet, shall specify the time of day to resynchronize. A time set to midnight (00:00) indicates no resynchronization is to take place. The daily resynchronization shall be one of two types:
      - i) A one-shot resynchronization, which, like the single-card resynchronization shall allow the ID to exit if the NetPort has received a message that it has already exited, and allow the ID to enter if the NetPort has received a message that it has already entered. This event shall be allowed to happen only once per card until the next resynchronization.
      - ii) An exit cycle resynchronization shall cause the NetPort to consider the lot empty. After the specified time of day, this feature shall require each card holder to use an entrance reader for their first card usage.
  - 3) The NetPort shall be capable of sending an unsolicited Passback message to ScanNet when it detects

- a passback.
- f. The NetPort shall be capable of communicating to and from ScanNet to set the following programming options: Passback Mode, Resync Mode, Resync Time, and Primary Area Overstay Time (for future development).

## 3. Electrical

- a. The NetPort shall have an RS-485/RS-422 interface with the following characteristics:
  - 1) Shall have an RJ-12 connector.
  - 2) Shall be used for communication with devices.
  - 3) Shall have a selectable baud rate: 2400, 4800, or 9600.
- b. The NetPort shall have a 10BASE-T port that is directly driven by the PCnet-ISA II Ethernet controller. The port shall be equipped with an RJ-45 connector.
- c. The NetPort shall have an RS-232 interface with an RJ-45 connector, which is used for programming of the NetPort. d. The power supply shall be 12 VAC, 1500 ma.

## 4. Construction

- a. The enclosure shall be made of zinc plated 16 gauge cold roll steel.

## 5. Power Connection Panel

- a. The NetPort shall be configured using up to 32 devices.
- b. The NetPort shall have a device address setting location at the top of the unit, which is two rotary switches with alpha and numeric characters printed on them.
- c. Up to 253 NetPorts may exist on one ScanNet Central Management System.
- d. The NetPort shall have a transaction buffer for messages.
- e. The NetPort shall have a battery backup for memory.



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