

Desigo® Fire Safety Modular system

Network Ring Card [2nd Generation] Model NRC

Architect & Engineer Specifications

- ❑ Second-generation network ring card for Desigo Fire Safety Modular system
- ❑ Provides single / multi-mode fiber-optic or copper connections
- ❑ Provides `Class X` (Style 7) peer-to-peer XNET communication in a ring topology
- ❑ Isolates short-circuit faults
- ❑ Ground-fault detection
- ❑ Network repeater
- ❑ Downloadable firmware
- ❑ UL864 & CAN / ULC-S576 Listed;

Product Overview

The Network Ring Card – the second generation of Model NRC from Siemens – Fire Safety is a networking card that transmits communication data via copper lines, or through single-mode (Model FN2006-U1) or multi-mode (Model FN2007-U1) fiber-optic cable.

Model NRC uses a `Class X` (Style 7) ring configuration to work with Desigo Fire Safety Modular system fire alarm control panels (FACPs).

Specifications

One (1) Model NRC (per system node) provides XNET, peer-to-peer communication between systems, allowing a maximum 64 Desigo Modular FACPs to be networked together.

Model NRC must reside in the same enclosure as the Operator Interface (OI). Model NRC supervises the XNET-ring network to insure proper operation. Model NRC also isolates a short-circuit fault to each individual segment of the XNET network.

The Network Ring Card performs ground-fault detection on its outgoing ring port. Any detected faults are reported to the OI for annunciation.

Model NRC isolates faults to an individual node, allowing communication on the network ring to continue. Additionally, Model NRC provides an electrical repeater for each XNET pair.

The front bezel for the 2nd Generation of Model NRC contains one (1) reset switch; three (3) LEDs; one (1) RJ-45 port; one (1) RJ-11 port, and one (1) USB port.



**Model
NRC
Network
Ring Card**



Specifications – (continued)

There is a singular Power LED and diagnostic LEDs for indication of 'Card Fail' and 'Trouble'. Universal Serial Bus (USB) and RJ-45 jacks provide a connection for firmware download. A RJ-11 monitor jack allows for connection to diagnostic tools.

Used in conjunction with a XNET NIC-C, the 2nd Generation Network Ring Card allows network communication to Siemens management stations. Management stations do not reside directly on the ring, but receive communication via a point-to-point connection. This communication process allows events to be displayed at the command center. Trouble, Acknowledge, Alarm-Silence and System-Reset commands are also supported at the connected management station. The Management station can also be used to perform Maintenance commands on an individual Desigo Fire Safety Modular system on the XNET Siemens Network.

Model NRC takes one (1) card slot, and mounts in a Model CC-2 or CC-5 card cage inside a Model CAB-1 | Model CAB-2, or Model CAB-3 enclosure. For copper connections, Model NRC supports 22 AWG min. to 12 AWG max shielded or unshielded twisted pair with a minimum of three (3) twists per foot. Dependent upon the wire type that is used, a maximum distance of 3,300 feet (1,006m) per pair is supported between each card.

As an option, a communications bracket (Model COM-BRK) may be used for mounting to either Model FN2006-U1, which is the single-mode fiber-optic module, or to Model FN2007-U1, which is the multi-mode fiber-optic module. Additionally, Model COM-BRK utilizes a two-slot location within a Model CAB-1, CAB-2 or CAB-3 enclosure.

Temperature and Humidity Range

The Network Ring Card is UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

Electrical Ratings	
2ND GENERATION RING CARD	
INPUT POWER	
24V BACK PLANE CURRENT	140mA
SCREW TERMINAL (24V CURRENT DRAW)	0
6.2V BACK PLANE CURRENT	20mA
24V STANDBY CURRENT	145mA

Details for Ordering		
MODEL OR TYPE	PART NUMBER	PRODUCT
NRC	S54430-A2-A1	2 nd Generation Network Ring Card
FN2007-U1	S54400-A62-A1	Multi-Mode Fiber-Optic Module
FN2006-U1	S54400-A61-A1	Single-Mode Fiber-Optic Module
COM-BRK	S54430-B7-A1	Communications Bracket

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

Desigo® Fire Safety

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