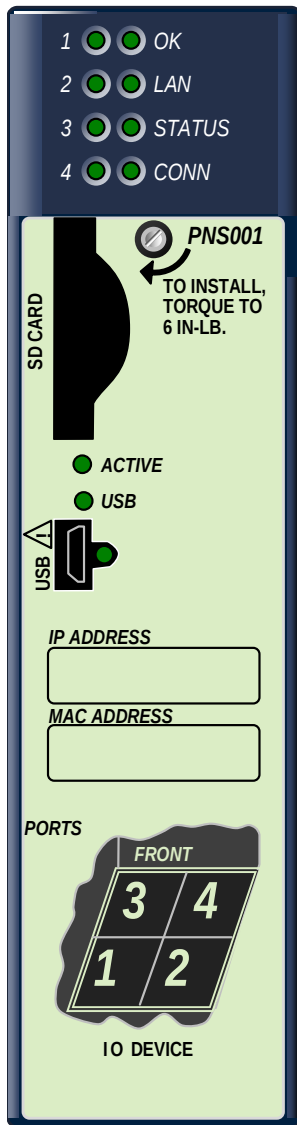


PACSystems* RX3i

IC695PNS001-ABAF

PROFINET Scanner Module

GFK-2738F
Apr 2014



The PACSystems* RX3i PROFINET Scanner (PNS) module, IC695PNS001, connects a remote universal RX3i I/O rack of Series 90-30 or RX3i modules to a PROFINET I/O Controller. The PROFINET Scanner scans the modules in its rack, retrieving input data and providing output data, and exchanges that data on the PROFINET I/O LAN at the configured production rate.

The PNS manages PROFINET communication and module configuration between an I/O Controller and modules in the remote rack. If network communications are lost, the PNS manages I/O states according to the individual module configurations.

The PNS supports 10/100/1000 Mbps Copper, 100/1000 Mbps Multi-mode Fiber, and 100/1000 Mbps Single-mode Fiber. PROFINET communications on the network require 100 or 1000 Mbps link speed. Although 10 Mbps cannot be used for PROFINET communications, 10 Mbps can be used for other types of Ethernet traffic such as PING.

Features of the RX3i PNS include:

- Programming and configuration services for all supported Series 90-30 and RX3i I/O Modules using Proficy Machine Edition. For a list of currently supported I/O modules, refer to "Supported Modules, Power Supplies and Backplanes," on pages 9-12.
- Support for daisy-chain/line, star, or ring (PROFINET Media Redundancy Protocol (MRP)) topologies.
- Four switched Ethernet ports - two 8-conductor RJ-45 shielded twisted pair 10/100/1000 Mbps copper interfaces and two Small Form-factor Pluggable (SFP) cages for user-supplied SFP devices.
- The network can include media interfaces of more than one type.
- Support for transfer of I/O Device Name to another PNS module using an SD card. This eliminates the need to connect a configuration tool, such as Proficy Machine Edition when replacing a module.
- A USB port for field updates of firmware using WinLoader.

Note: The USB port is for firmware upgrades only. It is not intended for permanent connection.

Ordering Information

IC695PNS001	PACSystems RX3i PROFINET Scanner Module 10/100/1000 with four Ports (two SFP connections, two Copper) Includes a blank SD card, two mounting screws and a USB port cover
IC695SPC100	RX3i 10/100/1000Base-T copper SFP
IC695SPF002	RX3i 100Base-FX (fiber 2 km) SFP (Multi-mode fiber - MMF)
IC695SPF550	RX3i 1000Base-SX (fiber 550 m) SFP (MMF)
IC695SPF010	RX3i 1000Base-LX (fiber 10 km) SFP (Single-mode fiber - SMF)

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PNS Specifications

PROFINET Support	PROFINET Version 2.3 Class A I/O Device Redundantly controlled operation implements PROFINET V2.3 Type S-2 System Redundancy	
RX3i PLC CPU Version Required	CPU315/CPU320 with firmware version 7.10 or later CPE305/CPE310 with firmware version 7.10 or later	
Proficy Machine Edition Version Required	Version 8.50 SIM 2 or later	
Power Requirements	3.3 V: 1.2 A with no SFP devices installed 1.9 A maximum (two SFP devices installed, 0.35A per SFP)	
	5V: 1.1 A maximum	
Operating Temperature Range	0 to 60°C Derated to 57°C: • If 100MB Fiber SFPs installed, or • If Copper SFPs operating at 1GB	
Number of Port Connectors	Two RJ-45 and Two SFP Cages (SFP devices not included, available separately.)	
USB Connector (for firmware upgrades)	One Micro-B connector. USB 2.0 compliant running at Full-speed (12 MHz)	
SD Card	Supports SD and SDHC cards.	
PNS Status and Control Bits	32 input status bits and 32 output control bits	
PROFINET I/O production rate (I/O Update Rate)	Configurable selections: 1ms, 2ms, 4ms, 8ms, 16ms, 32ms, 64ms, 128ms, 256ms or 512 ms	
Number of IP addresses	One. Supports Classless Inter-Domain Routing (CIDR)	
Number of MAC Addresses	Five. One per external port and one internal.	
I/O Station Maximum Limits	Number of I/O Modules per station	Number of backplane slots minus one for PNS and at least one for a power supply
	I/O data per station	2880 bytes total 1440 bytes of input data 1440 bytes of output data
Configuration	V2.3 GSDML file is available on the Support website for download and import into Proficy Machine Edition. The GSDML supporting a firmware release is part of the firmware upgrade kit available on the Support website.	

For product standards, general operating specifications, and installation requirements, refer to the *PACSystems RX3i System Manual*, GFK-2314.

Additional Information

For additional information, please refer to the manuals listed below. Manuals can be downloaded from the Support website, <http://support.ge-ip.com>.

PACSystems CPU Reference Manual, GFK-2222

PACSystems HSB Hot Standby CPU Redundancy User's Manual, GFK-2308

PACSystems RX3i High-speed Counter Modules User Manual, GFK-2441

PACSystems RX3i PROFINET Controller Manual, GFK-2571

PACSystems RX3i PROFINET Controller Command Line Interface Manual, GFK-2572

PACSystems RX3i PROFINET Scanner Manual, GFK-2737

PROFINET I/O Devices Secure Deployment Guide, GFK-2904