GE
Intelligent Platforms

PAC8000 PROFINET Scanner

Enables I/O solutions for harsh environments

GE Intelligent Platforms understands the need for tough controls that can withstand G3-rated environments where corrosive gases are present. The I/O must operate in both high and low temperatures and under extreme vibration while using a minimal amount of power.

As part of our vision to connect machines, data, insights, and people, GE Intelligent Platforms brings PROFINET-enabled I/O into these harsh environments. The PAC8000 PNS connects people to machines that operate in remote and hazardous environments. It can be used with RX3i, RXi or third-party PROFINET-enabled controller bases. The PAC8000 allows operators and service teams to make quicker, smarter decisions based on real-time visualization and furnishes actionable data through remote diagnostics. And with the Proficy Machine Edition suite of software for programming, setup is quick and easy.

High performance in extreme conditions

The G-3 rated IO modules are specifically designed for harsh environments where extreme temperatures and corrosive gases are present, such as oil and gas, water treatment, paper and industrial mills, and mining. The PAC8000 PNS module operates in a broad temperature range (-40°C to +70°C), and handles high vibration levels.

The Power of PROFINET

The PAC8000 PNS leverages the power of PROFINET, the industry-leading open communication protocol. Requiring only one wire, PROFINET simplifies installation. Proficy Machine Edition quickly recognizes PROFINET devices through GSDML files and seamlessly integrates them, resulting in simpler configuration. And once the PAC8000 PNS is configured, PROFINET provides ultra-fast connection to real-time operational data.

Low Total Cost of Ownership

The PAC8000 family's G3 rating means that it can withstand harsh environments, reducing downtime and replacement costs. Since it only requires one wire, material and installation expenses are minimized. The PAC8000 is designed to run with lower power, requiring less battery infrastructure to maintain. And, the PAC8000 doesn't require a heated or air conditioned cabinet, further reducing the total cost of ownership.

FEATURE	BENEFIT
G3 & high temperature rating	• Class G3 ISA-S71.04-1985 conformal coating protects against corrosive gases. • Fewer failures due to corrosion and temperature extremes. • Real-time data from harsh, limited-access environments.
PROFINET enabled remote I/O	• Fiber extends the reach between controller and I/O. • Ideal for harsh, high-risk applications such as mining, subsea, and oil and gas.
Remote data access	• Ability to roll up data from remote sites for improved decisions.
Reliability	• Withstands high vibration environments. • Temperature rating from -40C to +70C.
Ease of configuration	• Uses Proficy Machine Edition for simpler programming with GSDML simplicity.

Specifications

PROFINET Support	PROFINET Version 2.2 Class A IO-Device	
RX3i PLC CPU Version Required	Firmware version 7.0 or later	
Proficy Machine Edition Version Required	Version 7.5 SIM 3 or later. V2.2 GSDML and Proficy Machine Edition/3rd-Party tools.	
Power Requirements	8515-BI-PN 4.5 Watts (5.5 Watts Max) 8516-BI-PN 6.0 Watts (7.2 Watts Max)	
Module Dimensions	128.3mm x 160.3mm x 47.78mm (5.05" x 6.31" x 1.88")	
Module weight	150g	
Carrier Required	8752-CA-NS : PAC8000 Node Services Carrier	
Operating Temperature Range	8515-BI-PN -40°C to +70°C 8516-BI-PN -40°C to +70°C Horizontal DIN rail mounting. Optimum orientation is when the carrier is mounted in a vertical plane with field terminals for communication cables located below the modules.	
Number of Port Connectors	8515-BI-PN: Two RJ-45 8516-BI-PN: Two SC-Duplex	
USB Connector (for firmware upgrades)	One Micro-B connector. USB 2.0 compliant running at Full-speed (12 MHz)	
PNS Status and Control Bits	64 input status bits and 16 output control bits	
I/O Data Update on the PROFINET LAN	Configurable: 1ms, 2ms, 4ms, 8ms, 16ms, 32ms, 64ms, 128ms, 256ms and 512ms (Recommended is 4 ms and above)	
Number of IP addresses	One. Supports Classless Inter-Domain Routing (CIDR)	
Number of MAC Addresses	Three. One per external port and one internal. External MAC addresses are only used for specialized Ethernet protocols such as MRP or LLDP	
I/O Station Maximum Limits	Number of I/O Modules per Node	32
	I/O data per station	2880 bytes total 1440 bytes of input data 1440 bytes of output data
RoHS Compliance	Yes	
Configuration	Configured using Proficy Machine Edition when used with a PACSystems RX3i PROFINET Controller (PNC) module, as part of an RX3i PROFINET network. V2.3 GSDML file is available for import into 3rd-Party tools.	
IO Carrier	8709-CA-08	

For PNS installation, configuration and operating information, refer to the PAC8000* IO PROFINET Scanner User's Manual, GFK-2839

Ordering Information

8515-BI-PN	PAC8000 PROFINET Scanner Module, Two 10/100Mbps copper interface
8516-BI-PN	PAC8000 PROFINET Scanner Module, Two 100Mbps Multi-Mode fiber (MMF) ports
8752-CA-NS	PAC8000 Node Service Carrier

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