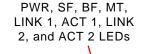
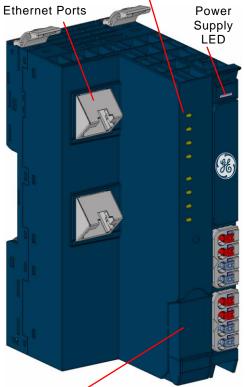
GFK-3052 September 2018





Door for Micro USB Port

PROFINET Scanner

PROFINET® Scanner EPXPNS101

The EPXPNS101 PROFINET Scanner is a PROFINET I/O device supporting S-1 PROFINET Simplex and S-2 PROFINET System redundancy. The network adapter is the head module for the RSTi-EP system bus, to which up to 64 active RSTi-EP modules can be connected. The PROFINET network adapter has two Ethernet ports, and an integrated switch.

The PROFINET Scanner can be accessed with a system-independent web server application via the USB service interface or the Ethernet. Thus, all information, such as diagnostics, status values and parameters, can be read and all connected modules can be simulated or forced.

The station's main power supply is integrated in the PROFINET Scanner. Power is supplied via two 4-pole connectors, separated into the input and output current paths.

Caution, the RSTi-EP station is usually installed on a horizontally positioned DIN rail. Installation on vertically positioned DIN rails is also possible. However, the heat dissipation is reduced such that the derating values change (refer to the section, <u>Thermal Derating</u>.

Modules should to be allowed to de-energize for a minimum 10 seconds after power down, prior to starting any maintenance activity. The PROFINET Scanner cannot be hot-swapped.

Refer to the *RSTi-EP Slice I/O User Manual* (GFK-2958) for additional information.

Refer to the *RSTi-EP Power Supply Reference Guide*, a software utility available on PME V9.00, for detailed power-feed requirements.

Module Features

- Supports up to 64 active RSTi-EP modules
- Supports PROFINET RT (only) for Redundancy and Non Redundancy mode
- Spring-style technology for ease of wiring
- DIN rail mounted
- Double-click installation for positive indication of correct installation
- Built-in Web Server (HTTP & HTTPS) for diagnostic information and firmware update through Ethernet and micro USB port
- Supports Type S2 System Redundancy operation
- Supports Media Redundancy Protocol (MRP) Client mode operation
- Support for daisy-chain/line, star, or ring (MRP) technologies
- Two switched Ethernet ports; 8-conductor RJ-45 shielded twisted pair 10/100 Mbps copper interfaces
- Fast start-up < 500 ms with a maximum of 10 modules

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GFK-3052

Ordering Information

Module	Description	
EPXPNS101	RSTI-EP Slice I/O PROFINET Network Adapter 2CU RJ45 PORTS	

Specifications

	EPXPNS101		
System data			
Connection		2 x RJ-45	
Fieldbus protocol	PROFINET Version 2.3 Clas		
PROFINET System Redundancy Support	Redundantly controlled operation conforms to PROFINET V2.3 Type S-2 System Redundancy		
Application Relations Supported	1 Simplex AR or 1 SR-AR s	set made of 2 SR-ARs	
Number of Application Relations Supported	1 Simplex AR or 1 SR-AR set made of 2 SR-ARs		
	Input data width	max. 512 bytes	
Process image	Output data width	max. 512 bytes	
Process intuge	Parameter data	max. 4362 bytes	
	Diagnostic data	max. 1408 bytes	
Number of modules	max. 64 active		
Configuration interface	Micro USB 2.0		
Transfer rate	Fieldbus	Max. 100 Mbps	
	RTSi-EP system bus	Max. 48 Mbps	
Data format	Default: Motorola	Configurable: Intel	
Status Bits	16 Input Status Bits		
PROFINET I/O Update Rate	Configurable selections: 1ms, 2ms, 4ms, 8ms, 16ms, 32ms, 64ms, 128ms, 256ms and 512ms		
Supports MRP	Yes * [Min I/O Update Rate for bumpless operation in an MRP ring topology 128ms for Profinet System Redundancy configuration. For simplex system Min IO update rate for MRP bumpless operation is 8ms]		
Supply			
Supply voltage for system and inputs	20.4V - 28.8V		
Supply voltage for outputs	20.4V – 28.8V		
Max. feed-in current for input modules	10 A		
Max. feed-in current for output modules	10 A		
Current consumption from system current path Isys	116 mA		
Connection data			
Type of connection		Spring style	
Conductor cross-section	Single-wired, fine-wired	0.14 – 1.5 mm ² (AWG 26 – 16)	
General data			
Operating temperature	-20°C to +60°C (-4 °F to +140 °F)		
Storage temperature	-40°C to +85°C (-40 °F to +185 °F)		
Air humidity (operation/transport)	5% to 95%, noncondensing as per DIN EN 61131-2		
Width	52 mm (2.05 in)		
Depth	76 mm (2.99 in)		
Height	120 mm (4.72 in)		
Weight	220 g (7.76 oz)		
Configuration	V2.3 GSDML file is available on the Support website http://support.ge- ip.com 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.		

LEDs

LED Status Indicators

LED	Indication	LED State/Description		
PWR	Power LED	Green: Supply voltage connected		
SF	System fault	Red: Configuration error, or error in the PROFINET Scanner, or error in a module, or there is a new diagnostic report Red flashing: Station in Force mode		
BF	Bus fault	Red: No connection to the fieldbus Red flashing: Configuration error, no connection to the control unit, or error in the parameter set		
МТ	Maintenance Required	Yellow: Error on the system bus or fieldbus		
LINK 1	Connection	Green: Connection established between port 1 of the PROFINET Scanner and another field device		
ACT 1	Active	Yellow flashing: Data being exchanged on port 1		
LINK 2	Connection	Green: Connection established between port 2 of the PROFINET Scanner and another field device		
ACT 2	Active	Yellow flashing: Data being exchanged on port 2		

LED Indicators

			LED	EPXPNS101
			Power	Green: Supply voltage > 18 V DC
X 1		PNS101	Supply	Red: At least one current path < 18 V
	PWR	Ge		
	BF	100		
	= MT			
	= LINK1			
X 2	ACT1			
	= ACT2			
		\Box		
			3.1	Green: Input current path supply voltage > 18 V DC
			3.2	Red: Input current path supply voltage < 18 V DC
EPXPNS101			3.3	
EPAPNSIO		<u> </u>	3.4	Red: Internal fuse defective
MAC-Address:	Service		4.1	Green: Output current path supply voltage > 18 V DC
00-15-7E-11-73-9D	Х З		4.2	Red: Output current path supply voltage < 18 V DC
			4.3	
			4.4	Red: Internal fuse defective
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