



PAC8000 PROFINET Bus Interface Modules

Newly Released PAC8000 PROFINET BIMs allow connection of PAC8000 I/O to remote hosts via PROFINET.

	8515-BI-PN	8516-BI-PN
Product Name	PROFINET BIM – RJ45 copper connection	PROFINET BIM – Fiber Optic connection
Lifecycle Status	Active*	Active*
Number of I/O Modules	14	14
Protocol Supported	PROFINET	PROFINET
BIM Redundancy	No (Yes from 2013)	No (Yes from 2013)
Baud Rate	10-100Mbaud	10-100Mbaud
LAN Redundancy	Ring	Ring
LAN Connector Type	RJ45	Fiber Optic
Maximum Bus Length	2 – 2,000 m (Full Duplex)	2 – 2,000 m (Full Duplex)
Data Frame Size (bytes)	N/A	N/A
Input Data (max.)	N/A	N/A
Output Data (max.)	N/A	N/A
Message Response Time		
LED Indicators	11	11
Address Setting	One (1) IP and Three (3) MAC	One (1) IP and Three (3) MAC
Configuration Tool	Machine Edition V7.5	Machine Edition V7.5
HART Data	Process Variables and Status (released in 2013)	Process Variables and Status (released in 2013)
Bus Isolation		
System Power (12 V)	4.5 Watts (5.5 Wats Max)	6.0 Watts (7.2 Watts Max)
Dimensions (L x W x H)	160.3mm (6.3") x 128.3mm (5.1") x 47.8mm (1.9")	160.3mm (6.3") x 128.3mm (5.1") x 47.8mm (1.9")
Module Weight (g)		
BIM Carrier	8752-CA-NS	8752-CA-NS
Common PAC8000 Specifications	See Section xx for System Specifications	See Section xx for System Specifications

*PROFINET BIMs will only support a select and growing number of I/O Modules. Please contact GE before quoting.

Currently supports modules:

8103-AI-TX	8117-DO-DC	8116-DO-AC
8104-AO-IP	8111-DI-AC	8118-DO-AC
8109-DI-DC	8112-DI-AC	8119-VI-05
8115-DO-DC	8113-DI-AC	
8110-DI-DC	8114-DI-AC	

PAC8000 Traditional Bus Interface Modules

When used as remote I/O, PAC8000 nodes use a Bus Interface Module (BIM) to communicate with the host controller via a local area network (LAN). Different BIMs can be chosen to operate with specific LAN protocols. BIMs are supplied in a number of different package styles according to their function, and each mounts on a dedicated BIM Carrier.

	8502-BI-DP	8505-BI-MB	8507-BI-DP	8521-EB-MT
Product Name	PROFIBUS DP BIM	Modbus BIM	PROFIBUS DP BIM	Ethernet BIM
Lifecycle Status	Active	Active	Active	Active
Number of I/O Modules	24	32	24	64
Protocol Supported	PROFIBUS-DP V1 (EN 50170)	Modbus RTU (Revision G)	PROFIBUS-DP V1 (EN 50170)	Modbus TCP/IP
BIM Redundancy	No	No	Yes	Yes
Baud Rate	9.6kb to 6 Mbaud	1.2 to 115.2 kbaud	9.6kb to 12 Mbaud	10- 100 Mbaud
LAN Redundancy	No	Yes	No	Yes
LAN Connector Type	RS-485	RS485/422	RS-485	RJ45
Maximum Bus Length	100 meters to 1.2Km depending on baud rate	15 meters	100 meters to 1.2Km depending on baud rate	
Data Frame Size (bytes)	Config. up to 244	N/A	Config. up to 480	N/A
Input Data (max.)	244 bytes	N/A	240 bytes	N/A
Output Data (max.)	244 bytes	N/A	480 bytes	N/A
Message Response Time		<4 ms		
LED Indicators	Power Fault Comm LAN A Config Railbus	Power Fault LAN A and LAN B Config Railbus	Power Master Healthy Fault Failsafe Red Comm Railbus Link LAN PROFIBUS	Power Master Healthy Fault Failsafe LAN A LAN B COM 1 COM 2 Safe Mode I/O Com
Address Setting	Software (by I/O Configurator) Switch (by 8510-NS-MO)	Software (by I/O Configurator) Switch (by 8510-NS-MO)	Hardware setting on carrier	Software (eBIM Workbench)
Configuration Tool	GSD File or I/O Configurator 8455-SW-CF	I/O Configurator 8455-SW-CF	GSD File or I/O Configurator 8455-SW-CF	Workbench 8459-EB-MT
HART Data	Process Variables and Status	Process Variables and Status	Process Variables and Status (from Q4 2012)	Process Variables and Status
Bus Isolation	500 V	500 V	500 V	1500 V
System Power (12 V)	420 mA typ. 520 mA max.	260 mA typ. 300 mA max.	420 mA typ. 520 mA max.	15 mA (12 V Controller Power 400 mA typ. 500 mA max.)
Module Width (mm)	63	63	42	69
Module Weight (g)	350	320	500	1350
BIM Carrier	8715-CA-BI 8718-CA-NS	8715-CA-BI 8718-CA-NS	8701-CA-BI	8750-CA-NS
Common PAC8000 Specifications	See Section 14 for System Specifications	See Section 14 for System Specifications	See Section 14 for System Specifications	See Section 14 for System Specifications

Note: If a PROFIBUS BIM is configured over the PROFIBUS using the GSD file, a reduced set of configuration parameters is available. If the 8455-SW-CF is used, more comprehensive options are available. The instruction manual for the BIM explains the configuration options.

Modbus and PROFIBUS-DP BIMs do not support the following modules: 8129-IO-DC, 8132-AI-UN, 8133-HI-TX, 8139-SH-DC, 8140-DO-AC, and 8142-DO-DC.