

PE1364B

DDCS-Modbus TCP Converter

PE1364B is a ModulBus/DDCS to Modbus TCP converter for ABB AC80 and AC4xx control-system communication. It connects the documented DDCS fiber interface to an Ethernet Modbus TCP network.

IDENTITY	VERIFIED VALUE
Manufacturer	ABB
Complete model	PE1364B
Product role	DDCS-Modbus TCP Converter
System family	ABB AC80/AC4xx

Document scope

Exact identity, verified technical data, applications, precautions, model-specific FAQ and controlled acceptance records.

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PE1364B

Technical Specifications

PARAMETER	VERIFIED VALUE
Product identity	PE1364B
Product type	ModulBus (DDCS) to Modbus TCP converter
Document revision	PE1364B/V11
Document date	2010-04-12
Firmware reference	Program version 20
Supply voltage	24 VDC; 12-30 VDC range
Current at 24 VDC	170 mA
Enclosure rating	IP00
Operating temperature	+5 to +40 deg C

PARAMETER	VERIFIED VALUE
Storage temperature	-40 to +70 deg C
DDCS speed	4 Mbit/s
DDCS media	1.0 mm POF or 200 micrometre HCS fiber
HCS fiber length	Up to 200 m with TB810
POF fiber length	Up to 15 m with TB810/TB811
Ethernet connector	RJ45
Default IP address	192.168.1.20
Modbus function	Holding register read, point type 03

Engineering boundary

Record the complete PE1364B identity, firmware, fiber type, node arrangement, IP settings and Modbus register map before replacement or recommissioning.

Functions and Applications

DDCS conversion

Bridges the documented ABB DDCS/ModulBus fiber connection to Modbus TCP.

Dual fiber support

Supports the documented POF or HCS fiber arrangements.

Ethernet access

Provides the RJ45 Modbus TCP interface and configurable IP communication.

AC80/AC4xx integration

Provides the documented communication path for the associated ABB controllers.

Common Applications

APPLICATION	ENGINEERING CONTEXT
AC80/AC4xx data exchange	Exposes documented controller data through Modbus TCP.
DDCS fiber network conversion	Connects a compatible ABB fiber network to Ethernet.
Legacy control-system integration	Allows a documented Modbus TCP client to access the supported register map.
Controlled gateway replacement	Restores an exact PE1364B with retained fiber, IP and register settings.

Related Products

MODEL	APTER POWER PAGE
ABB ACS-CP-C	View ABB ACS-CP-C
ABB IPSYS01	View ABB IPSYS01
ABB IPMON01	View ABB IPMON01

Controlled acceptance duty

Confirm identity, interfaces, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Verify the complete PE1364B marking and firmware before work.
2	Back up the IP address, register map and Modbus client configuration.
3	Identify whether the installed fiber is POF or HCS and record the terminal arrangement.
4	Do not exceed the documented fiber length for the installed interface units.
5	Use ESD controls and protect fiber ends from contamination and bending.
6	Establish the DDCS communication before expecting a Modbus TCP response.
7	Confirm the 24 VDC supply is within the documented range before energization.
8	Verify Ethernet, DDCS and mapped data quality before release.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What is PE1364B?	PE1364B is a ModulBus/DDCS to Modbus TCP converter used with ABB AC80 and AC4xx communication.
What supply does PE1364B use?	The documented supply is 24 VDC with an allowed range of 12 to 30 VDC.
Which fiber media does PE1364B support?	It supports 1.0 mm plastic optical fiber or 200 micrometre HCS fiber.
What is the PE1364B DDCS speed?	The documented fiber communication speed is 4 Mbit/s.

Related Products

MODEL	APTER POWER PAGE
ABB RB4C-355/170 3AXD50000006934	View ABB RB4C-355/170 3AXD50000006934
ABB 3HAC044361-003	View ABB 3HAC044361-003
ABB IEMMU21	View ABB IEMMU21
ABB ACS-CP-C	View ABB ACS-CP-C
ABB IPSYS01	View ABB IPSYS01

Model-Specific FAQ - Part 2

QUESTION	ANSWER
Which Ethernet connection does PE1364B provide?	It provides an RJ45 Modbus TCP connection.
What is the PE1364B default IP address?	The documented default address is 192.168.1.20.
Why might PE1364B not answer Modbus TCP?	The manufacturer manual states that DDCS communication must be running first.
What confirms PE1364B commissioning?	The supply, fiber link, Ethernet link, IP settings and required holding-register data must all be verified.

Related Products and Release

MODEL	APTER POWER PAGE
ABB IPMON01	View ABB IPMON01
ABB IEPEP03	View ABB IEPEP03
ABB IEPAS02	View ABB IEPAS02
ABB NTST01	View ABB NTST01
ABB NTMP01	View ABB NTMP01

MANUFACTURER SOURCE RECORDS

1. ProcessElektronik PE1364B/V11 User Manual
2. ProcessElektronik PE1364B Program Version 20 Record

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