

AB9001-B

Anybus X-gateway Modbus TCP Client to PROFIBUS Slave

Anybus AB9001-B is an X-gateway that connects Modbus TCP server devices to a PROFIBUS control system. It operates as a Modbus TCP client on Ethernet and as a PROFIBUS DP or DP-V1 slave.

BRAND	Anybus	FAMILY	Anybus X-gateway industrial network gateway
PART	AB9001-B	SYSTEM ROLE	Connects Modbus TCP server devices to a PROFIBUS master

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AB9001-B

MANUFACTURER SOURCE RECORD

Anybus X-gateway - Modbus TCP Client - PROFIBUS Slave Datasheet
HMS Networks AB9001-B generated datasheet

Product Overview

SYSTEM FUNCTION

Anybus AB9001-B is an X-gateway that connects Modbus TCP server devices to a PROFIBUS control system. It operates as a Modbus TCP client on Ethernet and as a PROFIBUS DP or DP-V1 slave.

FUNCTION 1

Connects Modbus TCP server devices to a PROFIBUS master

FUNCTION 2

Maps separate input and output data areas between the two networks

FUNCTION 3

Supports PROFIBUS DP-V1 acyclic services and diagnostics

FUNCTION 4

Uses browser-free gateway configuration through the documented configuration manager

System Components

COMPONENT	DOCUMENTED ROLE
Host / carrier	Anybus X-gateway industrial network gateway
Primary interface	Connects Modbus TCP server devices to a PROFIBUS master
Engineering context	Connect the documented Modbus TCP servers to the approved PROFIBUS master through the recorded network, power and I/O mapping.
Commissioning duty	Verify every mapped byte, PROFIBUS diagnostics, Modbus exception handling and controlled process response.

TECHNICAL NOTE

Record the Ethernet, PROFIBUS, power and byte-map configuration before exchange. Restore the approved file and validate every mapped data area and diagnostic after controlled power-up.

Technical Data

PARAMETER	VALUE	PARAMETER	VALUE
Country of origin	Sweden	PROFIBUS role	DP / DP-V1 Slave
HS code	8537101190	Ethernet bandwidth	10/100 Mbit/s
Product ID	AB9001-B	Minimum transaction cycle	10 ms
Modbus TCP role	Master / Client	Modbus TCP transactions	64

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
AB5030-B	ANYBUS-M PROFIBUS interface	View AB5030-B page
PLX32-EIP-MBTCP	Modbus TCP/IP gateway	View PLX32-EIP-MBTCP page
FBM232	P0926GW Ethernet communication gateway	View FBM232 page
CC-IP0101	51410056-175 PROFIBUS gateway	View CC-IP0101 page
140154	XN-GWBR-PBDP PROFIBUS gateway	View 140154 page
3500/92	136180-01 communication gateway	View 3500/92 page
133323-01	Modbus RS485 I/O interface	View 133323-01 page
1C31166G02	serial link controller	View 1C31166G02 page

ENGINEERING BOUNDARY

Confirm AB9001-B, 24 V DC power, Ethernet settings, Modbus transactions, PROFIBUS node, GSD and byte map before commissioning.

Applications and Precautions

Common Applications

- Modbus TCP device integration**

Maps documented Ethernet device data into a PROFIBUS PLC process image.
- Multi-server data concentration**

Coordinates the approved Modbus TCP transaction list before presenting values to the master.

- Legacy PROFIBUS cell modernization**

Retains an installed PROFIBUS controller while adding Ethernet-connected field equipment.
- Gateway replacement and migration**

Provides an as-found mapping reference before migration to the official replacement gateway.

Product Precautions

- 1

Confirm AB9001-B on the product label and record the installed firmware and configuration file.
- 2

Isolate the 24 V DC supply and connected network equipment before removing conductors.
- 3

Record both RJ45 connections, IP settings, server addresses and the complete transaction list.
- 4

Record the PROFIBUS node address, GSD, baud-rate behavior and input/output byte allocation.
- 5

Use ESD controls and inspect the DIN-rail latch, power plug, D-sub and Ethernet connectors.
- 6

Restore protective separation and route communication cables away from interference sources.
- 7

Load the approved gateway configuration before reconnecting the PLC and field devices.
- 8

Verify every mapped byte, PROFIBUS diagnostics, Modbus exception handling and controlled process response.

IMPORTANT NOTICE

Confirm AB9001-B, 24 V DC power, Ethernet settings, Modbus transactions, PROFIBUS node, GSD and byte map before commissioning.

ACCEPTANCE CHECK	REQUIRED EVIDENCE
Identity	AB9001-B
Configuration	Load the approved gateway configuration before reconnecting the PLC and field devices.
Functional release	Verify every mapped byte, PROFIBUS diagnostics, Modbus exception handling and controlled process response.

Engineer FAQ

Q1 What networks does AB9001-B connect?

AB9001-B connects Modbus TCP server devices on Ethernet to a PROFIBUS DP or DP-V1 master by operating as a Modbus TCP client and PROFIBUS slave.

Q3 Which Modbus functions are supported by AB9001-B?

The official datasheet lists functions 1, 2, 3, 4, 5, 6, 15, 16 and 23. Configure only the functions and addresses approved for each connected server.

Q5 What should be backed up before replacing AB9001-B?

Back up the gateway configuration and record IP settings, server addresses, transaction commands, byte mapping, PROFIBUS node, GSD, connector positions, firmware and diagnostic state.

Q7 How is AB9001-B validated after installation?

Confirm power and network status, master recognition and Modbus server communication, then compare every mapped input and output byte and review exception and PROFIBUS diagnostic behavior.

Q2 How much process data can AB9001-B exchange?

The official datasheet specifies 256 bytes of Modbus TCP input and output data, and 244 bytes of PROFIBUS input and output data. The configured mapping must stay within both interfaces' limits.

Q4 How is AB9001-B addressed on PROFIBUS?

Use the recorded PROFIBUS node assignment within the documented 0 to 125 range and ensure the same address and GSD definition are present in the master project.

Q6 How should AB9001-B be wired and mounted?

Mount it on EN 50022 DIN rail, use the 3-pin 5.08 mm power plug for the documented 24 V DC supply, connect Ethernet through the RJ45 ports and PROFIBUS through the 9-pin female D-sub.

Q8 What should be checked when migrating from AB9001-B to its successor?

HMS identifies ABC3200-A as the replacement. Recreate the protocol roles, transaction list, byte order, I/O sizes, IP settings, PROFIBUS node and master mapping, then run controlled end-to-end data tests.

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