

JOHB-SMP3

All-in One: Multi-Protocol Ethernet based communication option card

Data Sheet



EtherNet/IP™

EtherCAT®

PROFINET®

ASHRAE BACnet™

Modbus
TCP/IP

MECHATROLINK

The Multi-Protocol Ethernet option card (JOHB-SMP3) is a single circuit board option card for Yaskawa AC drives that contains multiple industrial Ethernet protocols. You can use a series of configuration switches on the circuit board to select the correct protocol for your application. Highly versatile and easy stock control.

Multi-Protocol Ethernet Option Card Specification

Item	Specification
Category	AC Drive option card
Name	Multi-Protocol Ethernet Communication Option card (MPE)
Model	JOHB-SMP3-MA
Order Code	10109077
Supported Protocols	<ul style="list-style-type: none"> • PROFINET • EtherCAT • EtherNet/IP • Modbus TCP/IP • BACnet IP • Mechatrolink 4
Supported message connections	<ul style="list-style-type: none"> • Explicit message: Explicit class 3, non-connection • I/O message: Class 1, Waiting only, input only
I/O assembly instance	<ul style="list-style-type: none"> • Input: 13 types (4-47 bytes) • Output: 13 types (4-47 bytes)
Conforming EtherNet/IP Specifications	Conformance Level CT 17: Certification
Recommended connector type	Cat5e Shielded cable
Physical layer type	Insulating physical layer
IP address setting	Configurable via drive parameters or network
Communication speed	Configurable via drive parameters or network: 10/100 Mbps, auto-negotiation
Number of connections	<ul style="list-style-type: none"> • Explicit message: 6 • I/O message: 2
Duplex mode	<ul style="list-style-type: none"> • Half duplex • Auto negotiate • Full duplex
Address Startup mode	<ul style="list-style-type: none"> • Fixed • BOOTP • DHCP
Ambient Temperature	-10°C to +50°C (14°F to 122°F)
Humidity	Up to 95% RH (non-condensing)
Storage Temperature	-20°C to +60°C (-4°F to 140°F) allowed for short-term transport of the product

Set the communication protocol using DIP switch S1 on the option, and the protocol is determined by the DIP switch setting when the power is applied. Check manual for details.

Note: With default settings, the communication protocol is not selected. When you energize the drive with the default setting, you will see oFA00 [Option Not Compatible with Port] or PSE [JOHB-SMP3 Protocol Set Error].

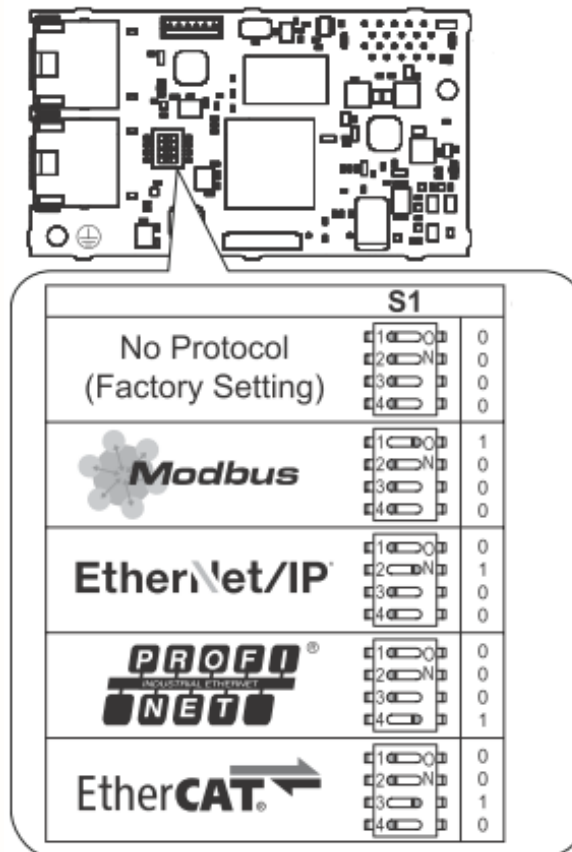


Fig. 1 Examples of DIP switch settings

Supported drive communication by JOHB-SMP3 option card:

AC Drive	Modbus TCP/IP	ProfiNet	EtherNet/IP	EtherCAT	BACnet IP	Mechatrolink 4
A1000	•	•	•	•		
D1000	•		•	•		
R1000	•		•	•		
U1000	•	•	•	•		
CR700	•	•	•	•		
GA500	•	•	•	•	•	•
GA700	•	•	•	•	•	

Note 1 JOHB-SMP3 option cards with firmware 8203 are shipped with 3 protocols, EtherCAT, EtherNet/IP and Modbus TCP/IP. To use ProfiNet, BACnet IP or Mechatrolink 4 communication with the MPE card, the user must upgrade the option card firmware.

The firmware of the JOHB-SMP3 multi-protocol option card can be updated using a web browser using the embedded RJ-45 ethernet ports of the card. Check the JOHB-SMP3 option card online info for more details. Support of all communication protocols requires option card FW 8208 or higher.

The protocol firmware can be found on the label placed on the ethernet ports of the option card, or on the option card packaging (PRG). When the JOHB-SMP3 option card is already attached to the drive refer to U6-97 monitor to check the option software version.



Fig. 2 Example of firmware version 8203 on the option card packaging

Note 2 Drives equipped with the JOHB-SMP3 option card can be connected to network in either star or line topology.

- Star Topology
Use either one of the communication connectors CN1A (Port 1) or CN1B (Port 2).
- Line Topology (Daisy-Chained)
Use the communication connectors CN1A (Port 1) and CN1B (Port 2) at the same time. A switch is not necessary for this connection.

JOHB-SMP3 Option Card online info

Use this page to download manuals and configuration files for your selected protocol



[JOHB-SMP3 option card online info](#)



[JOHB-SMP3 option card firmware](#)

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