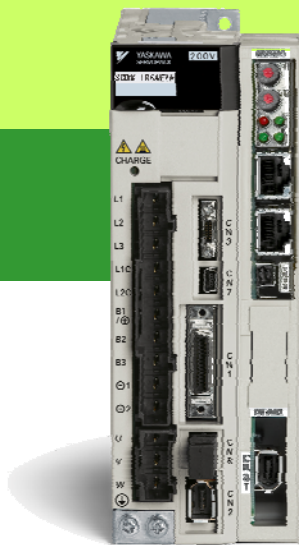


Sigma-5 Powerlink



ETHERNET 
POWERLINK

The Powerlink network module offers a wide range of functions based on the EPSG DS 301 and the CiA 402 Drive Profile Standards.

Sigma-5 Powerlink

The SGDV-OCB02A - Network Module is an add-on board, compatible with Sigma-5 series command option attachable type amplifiers SGDV – xxx x E x A.

Ethernet POWERLINK (EPL) is a communication profile for Real-Time Ethernet (RTE). It extends Ethernet according to the IEEE 802.3 standard with mechanisms to transfer data with predictable timing and precise synchronization. The communication profile meets timing demands typical for high-performance automation and motion applications. It does not change basic principles of the Fast Ethernet Standard IEEE 802.3 but extends it towards Real-Time Ethernet.

Powerlink is an open real-time Ethernet network supported by the Ethernet Powerlink Standardization Group (<http://www.ethernet-powerlink.org>).

The Module supports the functions:

- ▶ Profile Position mode
- ▶ Homing mode
- ▶ Interpolated Position mode
- ▶ Profile Velocity mode
- ▶ Profile Torque mode
- ▶ Communication rate of up to 100 Mbps
- ▶ 2 Standard RJ45 connectors
- ▶ 4 LEDs for status indication

Conformity:

- ▶ EPSG Specifications
- ▶ CiA Specifications
- ▶ Safety Standard UL508
- ▶ Material Compliance UL94V-0
- ▶ RoHS Directive 2002/95/EC
- ▶ WEEE Directive 2002/96/EC
- ▶ Low Voltage Directive 73/23/EEC
- ▶ EMC Directive 89/336/EEC

Communication Specification

Powerlink Communications	Communication profile	Ethernet Powerlink version V2
	Physical layer	100BASE-TX (IEEE802.3)
	Fieldbus connection	CN11A (RJ45): Powerlink Signal IN CN11B (RJ45): Powerlink Signal OUT
	Baud rate setting	100 MBit/s, half-duplex
	Node address setting	Select the address from 1 to 239 using rotary switches: S1, S2
	Communications power supply	Supplied from the internal power supply
	LED indicator	Red (ERR), Green (STATUS) Powerlink communicating (L/A) x 2
	Node type	Slave (CN = Controlled Node)
	SDO communication	1 server SDO over ASND and UDP
	PDO communication	Set of pre-defined PDOs type: Set for Servo drive. Supported RPDOs: 1 Supported TPDOs: 1 PDO mapping Dynamic with max. 8 mapping entries, default setting according to IEC 61800-7-301
	MN guarding	By timeout-monitoring of SoC frames.
Powerlink Drive Profile	Standard	IEC 61800-7-1/2/3 Committee Draft
	Motor type	Servo
	Axis type	Rotary, Linear
	Homing modes	Supported methods: 1-6, 17-20, 33-35 Motion profile type: linear Homing persistent in absolute motor encoder
	Profile position mode	Single set point: Yes Set of set-points: Yes Motion Profile type: Linear
	Profile Velocity mode	Motion profile type: Linear
	Profile Torque Mode	Torque Profile type: Linear
	Interpolated Position Mode	Buffering: No Interpolated sub-mode: Linear Synchronization by SOC (SYNC) Time Period: 0.5, 1, 2 and 4 ms
	Touch Probe Mode	2 touch probe functions



Compatible with Sigma-5 series amplifiers:
Order Number Powerlink Module:
Order Number Mounting Kit:

SGDV – E A
SGDV-OCB02A
SGDV-OZA01A



Yaskawa Europe GmbH
Hauptstr. 185
65760 Eschborn
Germany
www.yaskawa.eu.com